

Department SERH

1986-04-14

REPORT 86.49 (APS 3)

Pr.nr. 505.0720

Subject: Atlas of FTIR spectra of anabolics  
in the region  $1800-500\text{ cm}^{-1}$ , with  
adequate peak tables (based upon  
minimum relative peak intensities).

Verzendlijst: directeur, sektorhoofd PK, sektorhoofd PV, afd. SERH  
(3x), projectleider, projectbeheer, bibliotheek (1x),  
afd. OCON, CL-RVV, circulatie.



STATE INSTITUTE FOR QUALITY CONTROL OF AGRICULTURAL PRODUCTS (RIKILT)  
Wageningen, The Netherlands

Department of Spectroscopy/Electrochemistry/Radio activity and Hormones

1986-04-14

REPORT 86.49 (APS 3)

Pr.nr. 505.0720

Project: Development of spectroscopic methods of analysis.

Subject: Atlas of FTIR spectra of anabolics in the region 1800-500  $\text{cm}^{-1}$ ,  
with adequate peak tables (based upon minimum relative peak  
intensities).  
(APS series, part 3)

Preceeding reports 86.47 (APS 1), 86.48 (APS 2).

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Summary:

FTIR absorption spectra of 49 anabolics and related compounds in the  
region 1800-500  $\text{cm}^{-1}$  are presented, together with:

- adequate peaktable files
- files with relevant data

This atlas has to be used together with RIKILT Report 86.47 (APS 1)  
"Atlas of FTIR spectra of anabolics and related compounds, 4000-400  
 $\text{cm}^{-1}$ " and with RIKILT Report 86.48 (APS 2) "Introduction of the con-  
cept "Adequate Peak Search" for confirmation of the presence of an  
analyte in a sample by infrared spectroscopy".

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Responsible : Dr W.G. de Ruig

Collaborators: Dr W.G. de Ruig and J.M. Weseman

Projectleader: J.M. Weseman

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## Introduction

In RIKILT Report 86.47 (APS 1) "Atlas of FTIR spectra of anabolics, 4000-400  $\text{cm}^{-1}$ ", the infrared spectra of 49 anabolics and related compounds are presented.

In RIKILT Report 86.48 (APS 2) "Introduction of the concept "Adequate Peak Search" for confirmation of the presence of an analyte in a sample by infrared spectrometry" is explained what Adequate Peaks are, and how they can be used for confirmation purposes.

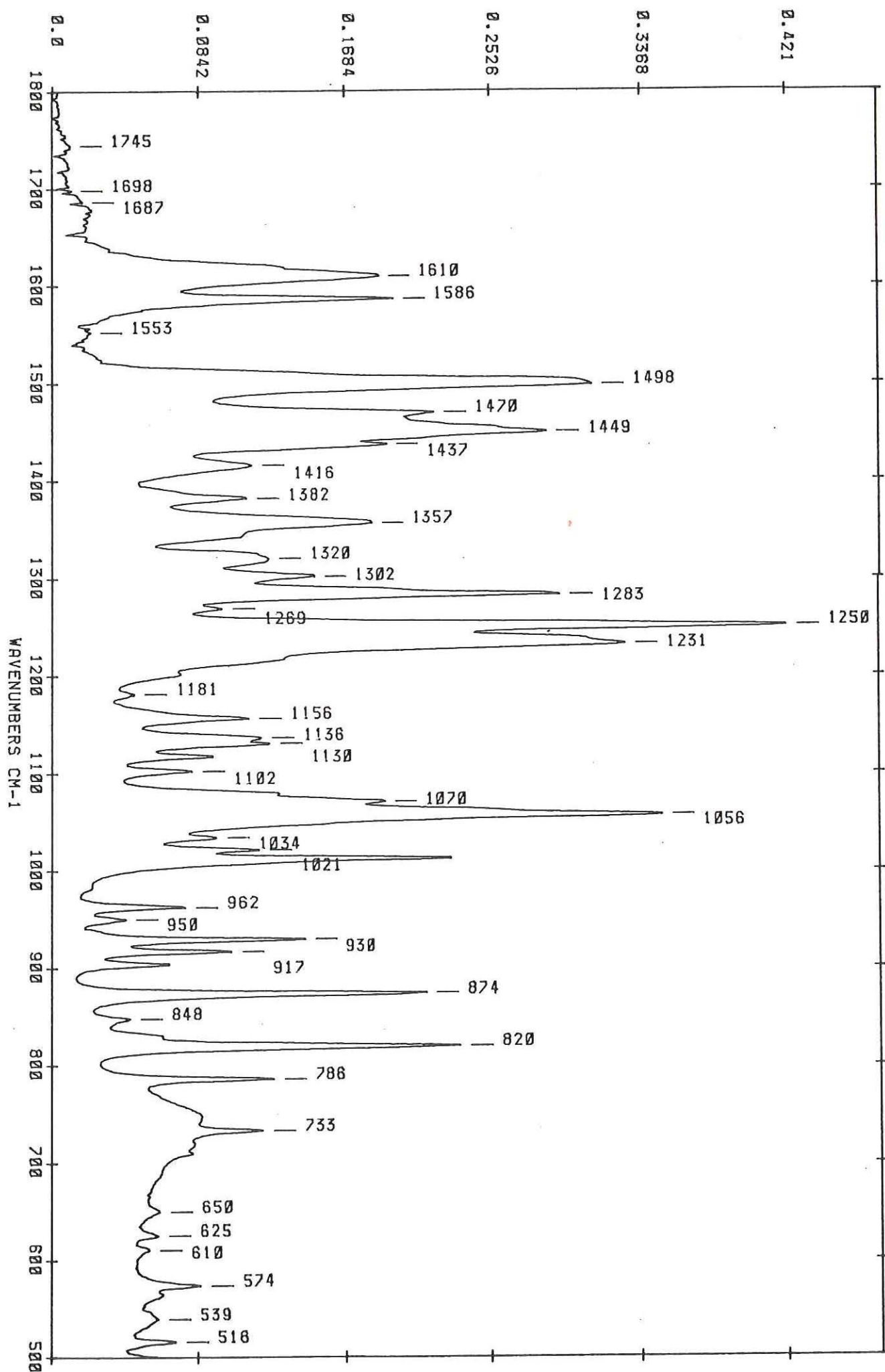
In this Report, the infrared spectra of the same 49 anabolics as in APS 1 are presented in the region 1800-500  $\text{cm}^{-1}$ , on a larger scale, with peak labelling and together with tables of the "Adequate Peaks". The Adequate Peaks positions, although listed in three decimals, are significant in whole wavenumbers only.

The Adequate Peaks tables are made on a Bruker Aspect 3000 computer, using a computer programme written by drs H. Jansen, Bruker Spectrospin Nederland BV, Wormer, the Netherlands.

COMPOUND NAME: 17 BETA-ESTRADIOL  
 SYSTEMATIC NAME: ESTRA-1,3,5(10)-TRIENE-3,17 DIOL  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,17 DIOL (17 BETA)  
 CAS NUMBER: 50-28-2  
 MERCK INDEX NO (10 ED): 3648  
 STERALIDS NUMBER: E 950  
 MOLECULAR FORMULE: C18H24O2  
 MOLECULAR WEIGHT: 272.39  
 MELTING POINT: 173-179  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: DIOGIN, ESTROVITE, FEMESTRAL  
 MANUFACTURER: MERCK  
 MANUFACTURER REFERENCE: 8984  
 CHARGE NUMBER: 9007942  
 FLS: HOR42006

ORIG. PEAK TABLE: HOR42006.PEAK=D2--->ADEQ. PEAK TABLE: HOR42006.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 27 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	732.907	29	14
2	785.947	30	7
3	819.699	56	7
4	873.703	51	6
5	904.563	16	8
6	917.099	24	6
7	929.636	34	6
8	962.424	18	7
9	1011.606	55	9
10	1021.250	28	10
11	1055.966	83	14
12	1102.256	19	10
13	1117.685	22	10
14	1130.222	30	19
15	1156.260	27	12
16	1231.479	78	14
17	1249.802	100	12
18	1282.590	69	12
19	1301.877	36	17
20	1320.200	29	29
21	1356.846	44	18
22	1381.919	26	15
23	1415.671	27	24
24	1449.424	68	27
25	1497.642	74	17
26	1586.362	47	9
27	1609.507	45	24

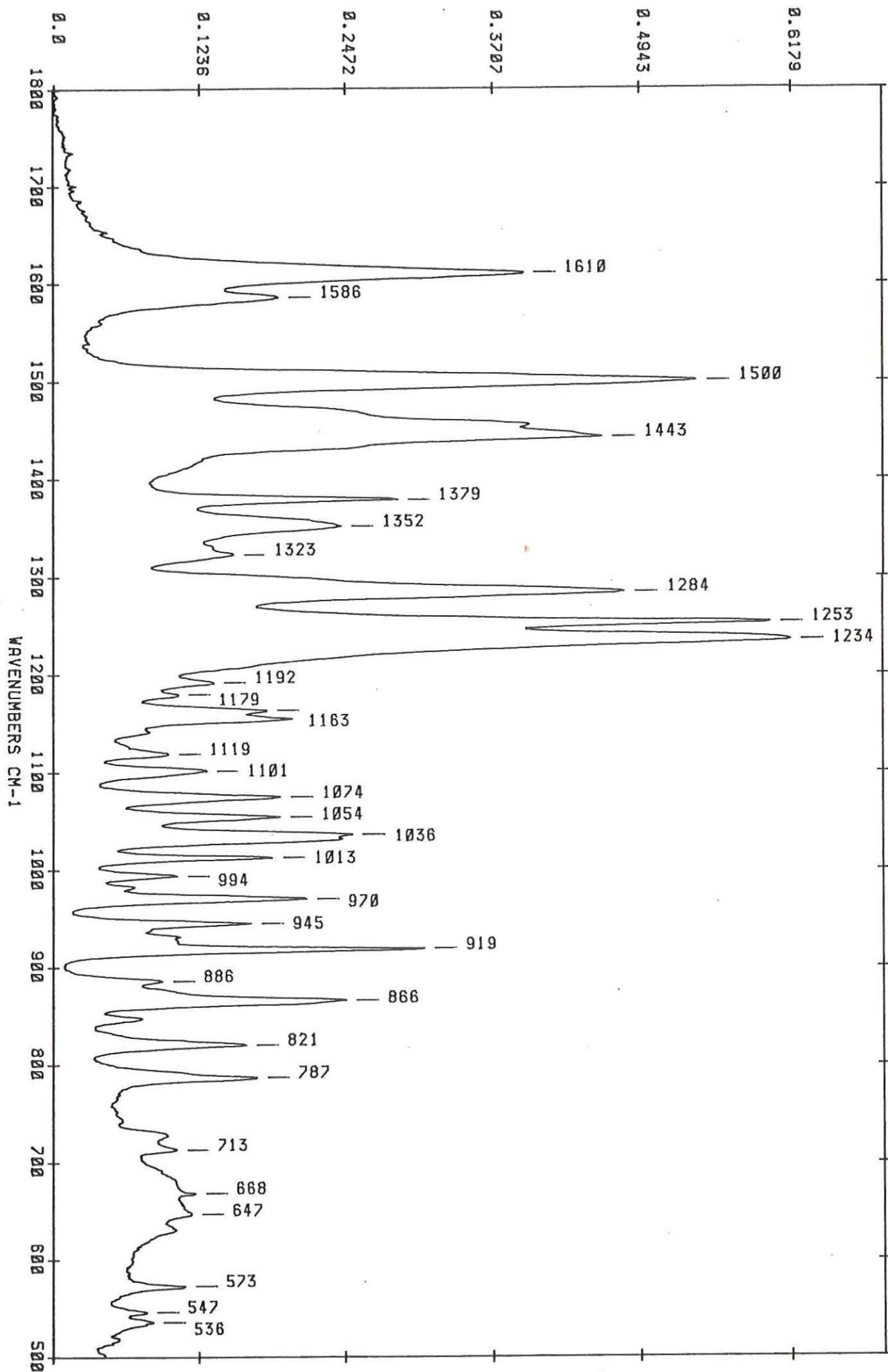


FLS-HOR42006

COMPOUND NAME: 17 ALPHA-ESTRADIOL  
 SYSTEMATIC NAME: ESTRA-1,3,5(10)-TRIENE-3,17 DIOL (17 ALPHA)  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,17 DIOL (17 ALPHA)  
 CAS NUMBER: 57-91-0  
 MERCK INDEX NO (10 ED): 3649  
 STERALIDS NUMBER: E 870  
 MOLECULAR FORMULE: C18H24O2  
 MOLECULAR WEIGHT: 272.4  
 MELTING POINT: 220-223  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-8750  
 CHARGE NUMBER: 92F-4019  
 FLS: HOR42007

ORIG. PEAK TABLE: HOR42007.PEAK=D2--->ADER. PEAK TABLE: HOR42007.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

24 PEAKS.	NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
	1	572.824	18	10
	2	786.911	28	14
	3	820.664	27	11
	4	865.988	40	12
	5	919.028	51	6
	6	945.066	27	9
	7	970.139	35	9
	8	994.248	17	8
	9	1012.570	30	8
	10	1035.715	41	16
	11	1054.038	31	11
	12	1074.289	31	11
	13	1101.291	21	14
	14	1118.650	16	14
	15	1154.331	33	10
	16	1234.372	100	22
	17	1252.695	97	10
	18	1283.555	78	18
	19	1352.024	39	26
	20	1379.026	47	10
	21	1442.673	75	33
	22	1499.570	88	18
	23	1586.362	31	19
	24	1610.471	64	20

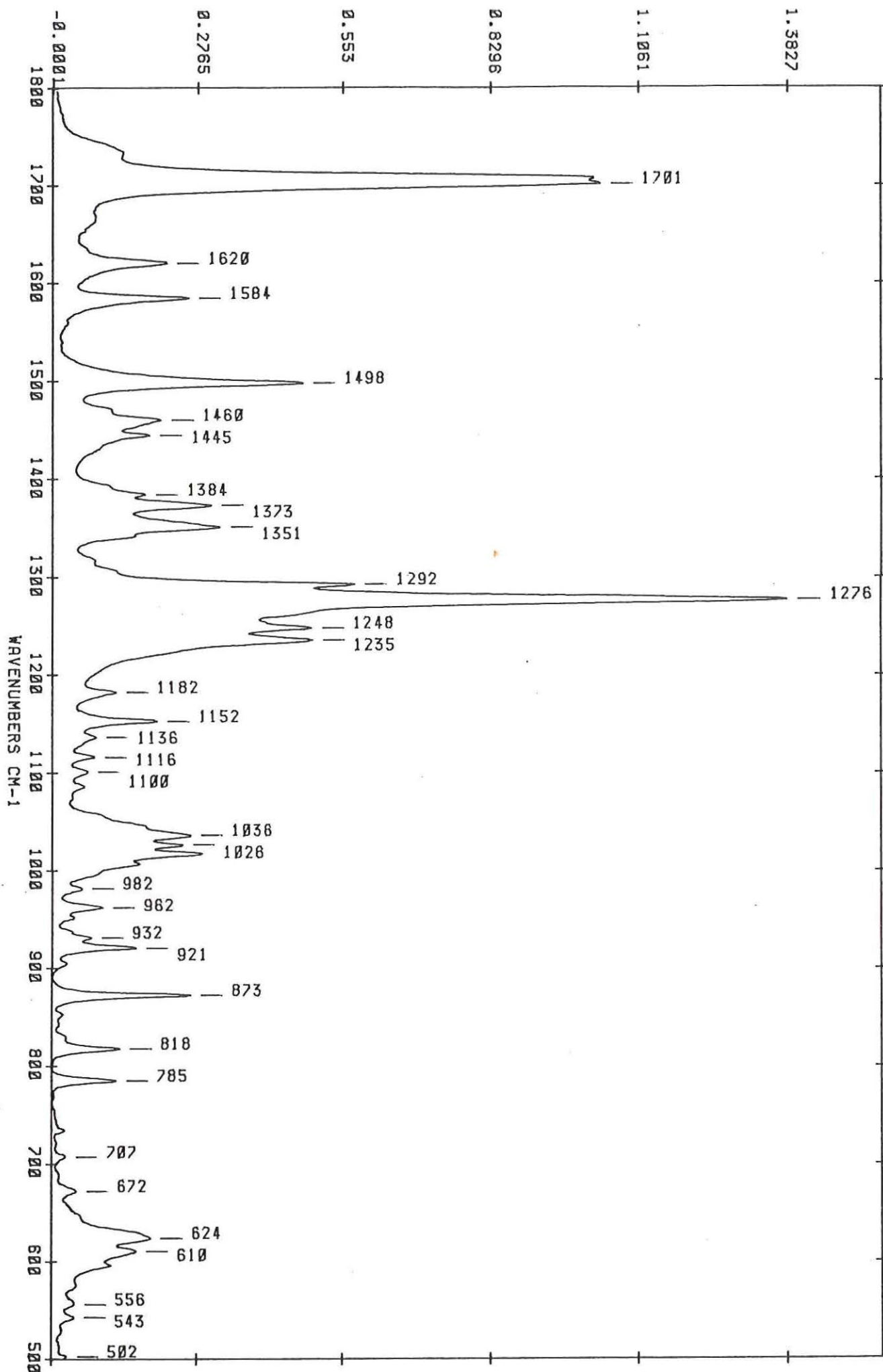




COMPOUND NAME: ESTRADIOL-17 BETA-ACETATE  
 SYSTEMATIC NAME: ESTRA-1,3,5(10) ESTRATRIEN-3,17 BETA-DIOL 17-ACETATE  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,17-DIOL(17BETA)-17-ACETATE  
 CAS NUMBER: 1743-60-8  
 STERALIDS NUMBER: E-952  
 MOLECULAR FORMULE: C20H26O3  
 MOLECULAR WEIGHT: 314.4  
 MELTING POINT: 217-220  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-7879  
 CHARGE NUMBER: 13F-0721  
 FLS: HOR42008

ORIG. PEAK TABLE: HOR42008.PEAK=D2--->ADEQ. PEAK TABLE: HOR42008.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 15 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	623.929	14	23
2	872.733	19	5
3	1017.387	21	25
4	1152.396	14	8
5	1235.331	36	19
6	1247.868	36	18
7	1275.834	100	13
8	1292.228	42	8
9	1351.054	23	16
10	1373.234	22	14
11	1460.026	15	16
12	1497.636	34	10
13	1584.428	19	8
14	1620.109	16	12
15	1701.115	75	16



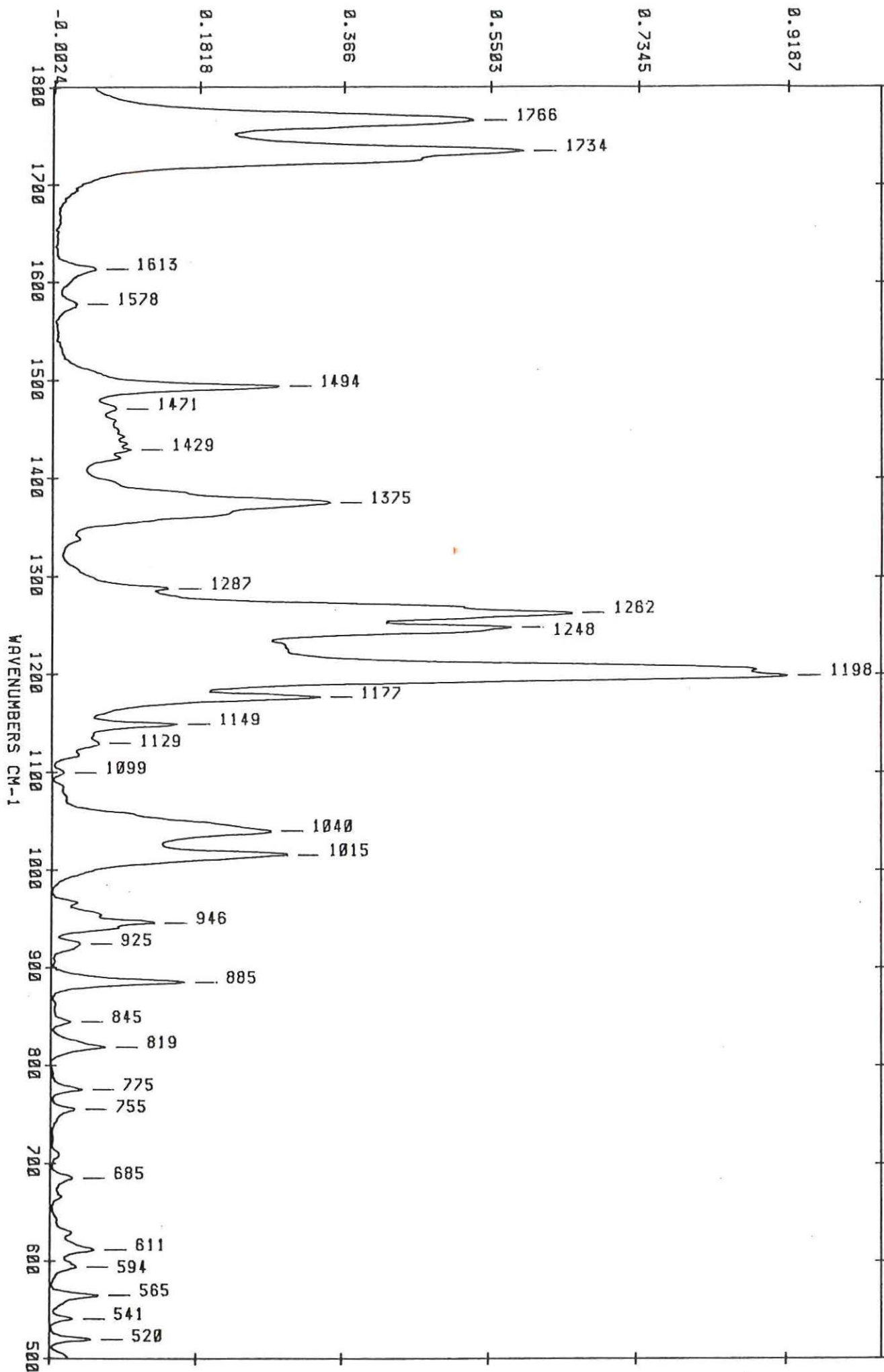
COMPOUND NAME: BETA-ESTRADIOL-DIACETATE  
 SYSTEMATIC NAME: 1,3,5(10)-ESTRATRIEN-3,17 BETA-DIOLDIACETATE  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,17-DIOL(17 BETA)-DIACETATE  
 CAS NUMBER: 3434-88-6  
 STERALIDS NUMBER: E 990  
 MOLECULAR FORMULE: C22H28O4  
 MOLECULAR WEIGHT: 356.4  
 MELTING POINT: 127-129  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: SIGMA  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-0253  
 CHARGE NUMBER: 11F-4017  
 FLS: HOR42011

ORIG. PEAK TABLE: HOR42011.PEAK=D2--->ADEQ. PEAK TABLE: HOR42011.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	885.275	18	8
2	946.030	14	12
3	1015.464	32	14
4	1039.572	30	20
5	1148.545	17	9
6	1176.511	37	11
7	1197.727	100	23
8	1247.873	63	15
9	1262.339	71	23
10	1375.168	38	22
11	1493.784	31	10
12	1733.909	64	22
13	1765.733	58	20

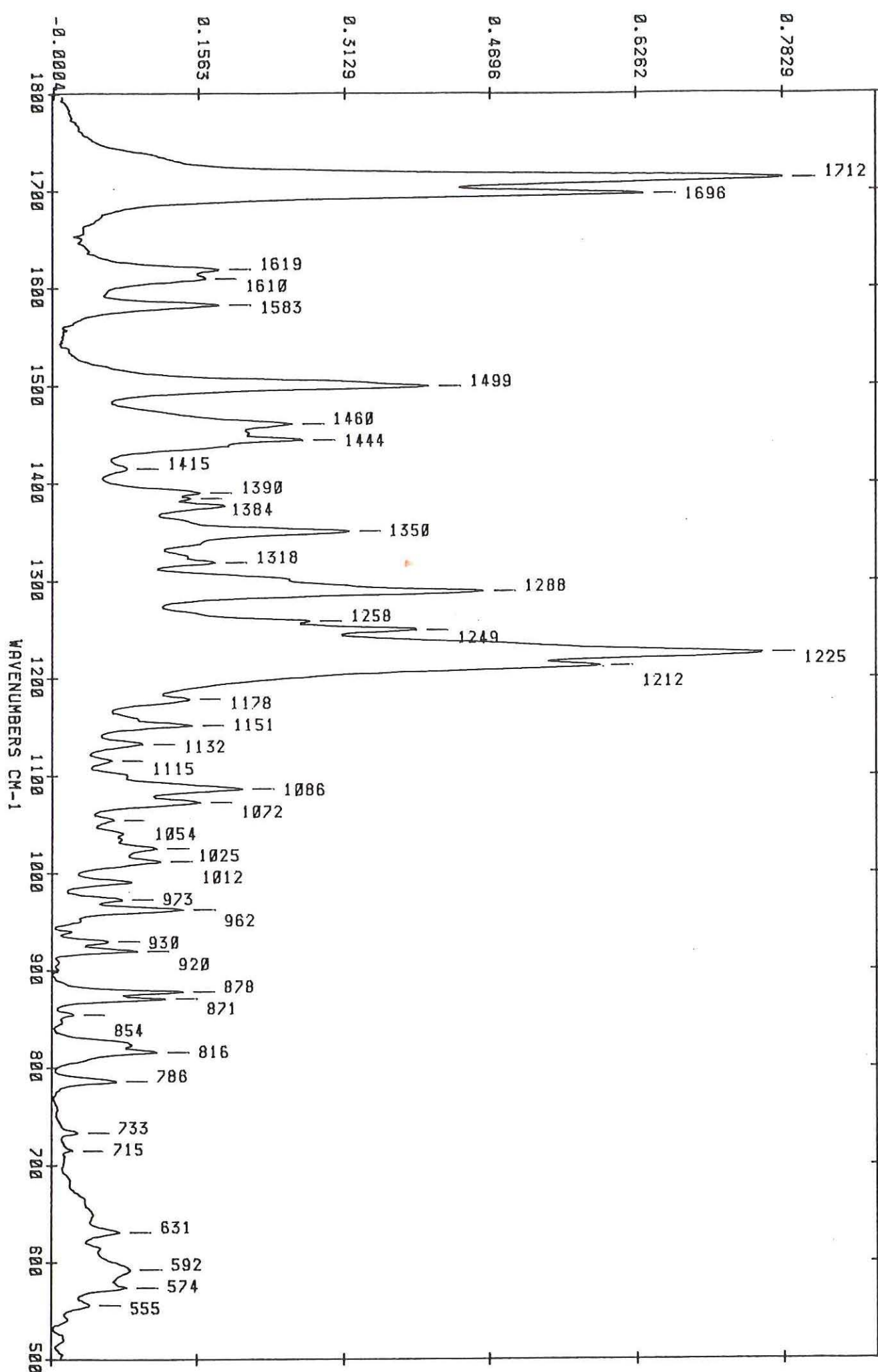




COMPOUND NAME: ESTRADIOL-17-PROPIONATE  
 CA NAME: -  
 CAS NUMBER: -  
 MERCK INDEX NO (10 ED): -  
 STERALIDS NUMBER: -  
 MOLECULAR FORMULE: C21H28O3  
 MOLECULAR WEIGHT: 328.4  
 MELTING POINT: 199-200  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: ACROFOLI 1N  
 MANUFACTURER: SERVA  
 MANUFACTURER REFERENCE: 31115  
 FLS: HOR42056

( ) ORIG. PEAK TABLE: HOR42056.PEAK=D2--->ADEQ. PEAK TABLE: HOR42056.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 20 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	815.842	14	16
2	870.810	16	6
3	877.561	18	6
4	962.424	18	9
5	1011.606	15	12
6	1072.361	20	13
7	1085.862	26	14
8	1151.438	19	10
9	1212.192	75	18
10	1224.729	97	23
11	1248.838	50	27
12	1288.376	59	15
13	1350.095	41	13
14	1443.638	34	21
15	1460.032	33	19
16	1498.606	52	13
17	1582.505	23	11
18	1619.150	23	25
19	1696.299	81	10
20	1711.729	100	14

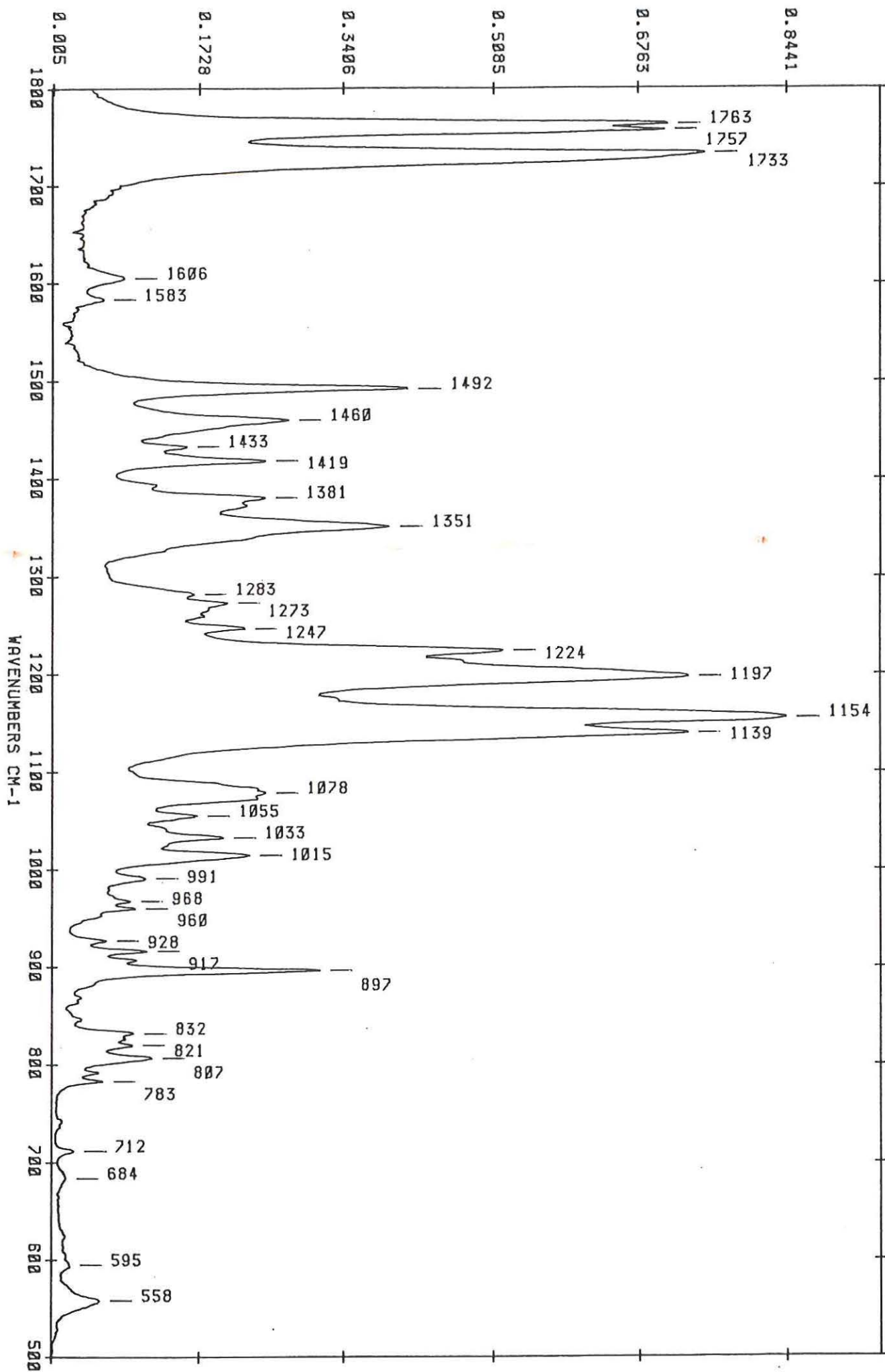


COMPOUND NAME: 17 BETA- ESTRADIOL-DIPROPIONATE  
 SYSTEMATIC NAME: 1,3,5(10)-ESTRATRIENE-3,17 BETA-DIOL DIPROPIONATE  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,17 DIOL (17-BETA)DIPROPIONATE  
 CAS NUMBER: 113-38-2  
 MERCK INDEX NO (10 ED): 3648  
 STERALIDS NUMBER: E 1040  
 MOLECULAR FORMULE: C24H32O4  
 MOLECULAR WEIGHT: 384.5  
 MELTING POINT: 104-105  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: AGOFOLLIN, DIMENFORMON-DIPROPIONATE, DIOVOCYLIN  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E 9125  
 CHARGE NUMBER: 122F-0913  
 FLS: HOR42012

ORIG. PEAK TABLE: HOR42012.PEAK=D2--->ADED. PEAK TABLE: HOR42012.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

21 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	807.163	14	13
2	896.848	37	8
3	917.099	13	8
4	1014.499	27	15
5	1032.822	24	13
6	1055.002	20	16
7	1078.147	30	33
8	1138.901	87	19
9	1154.331	100	27
10	1196.762	87	29
11	1223.764	62	15
12	1246.909	27	15
13	1272.947	24	39
14	1351.059	46	24
15	1380.955	30	14
16	1418.564	30	10
17	1460.032	33	17
18	1491.855	49	11
19	1732.944	89	18
20	1757.053	84	13
21	1762.840	84	10

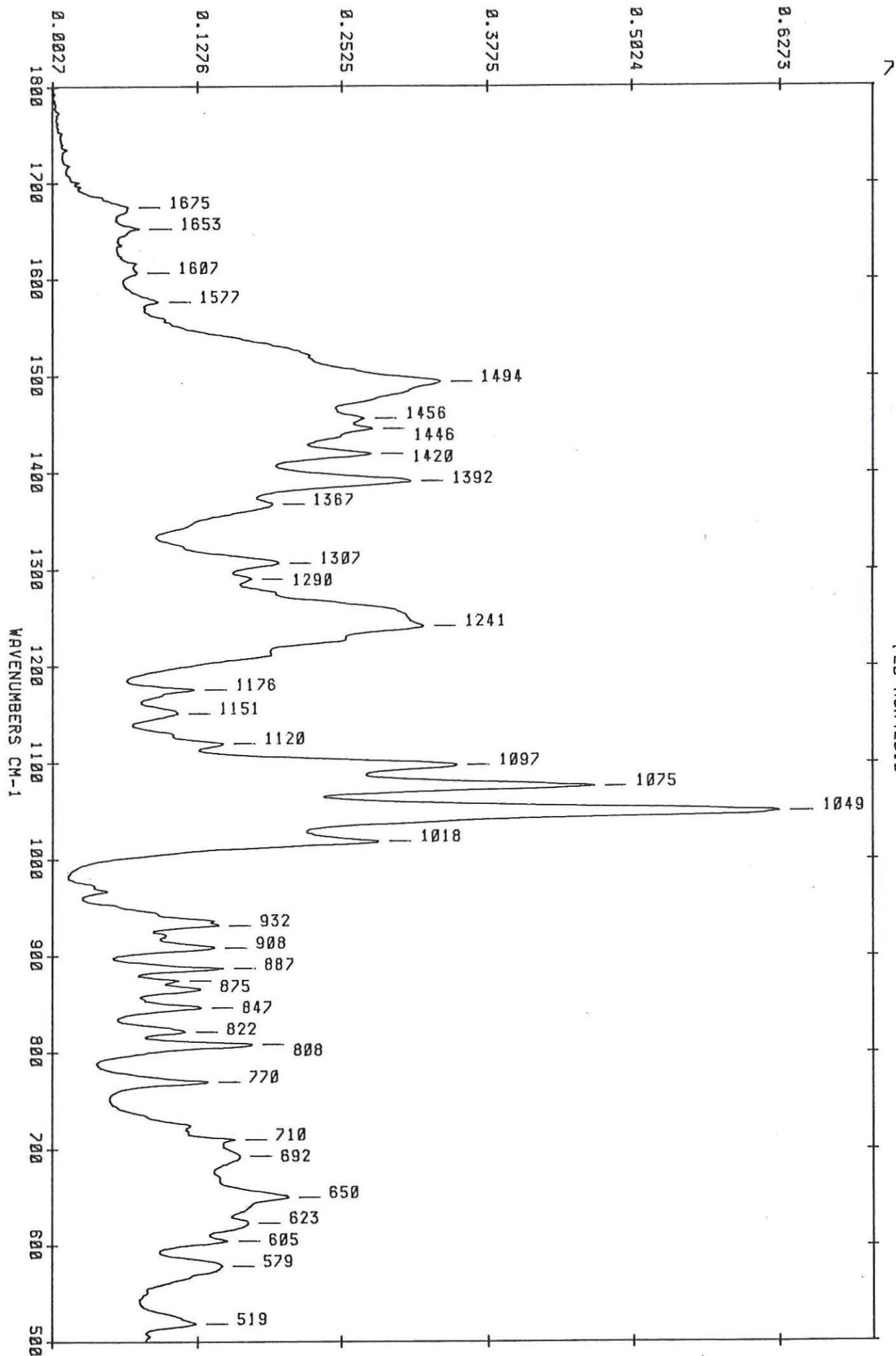




COMPOUND NAME: 17 BETA- ESTRADIOL-3-SULFATE  
 SYSTEMATIC NAME: 1,3,5(10)ESTRATRIEN-3,17 BETA-DIOL-3-SODIUMSULFATE  
 CA NAME: ESTRA-1,3,5(10)TRIENE-3,17 DIOL-(17 BETA)-3-SULFATE  
 CAS NUMBER: 66814-04-8  
 STERALIDS NUMBER: E 1100  
 MOLECULAR FORMULE: C18H23SO5  
 MOLECULAR WEIGHT: 374.4  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: CONTAINS 67% N-METHYL-D-GLUCAMINE AS STABILIZER  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-9505  
 CHARGE NUMBER: 120F-4065  
 FLS: HOR42010

ORIG. PEAK TABLE: HOR42010.PEAK=D2--->ADEQ. PEAK TABLE: HOR42010.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 21 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	518.820	20	41
2	578.610	24	41
3	649.973	33	31
4	769.553	22	13
5	808.127	28	12
6	821.628	19	16
7	846.701	21	12
8	865.988	21	16
9	887.204	24	9
10	908.420	23	14
11	931.565	23	35
12	1018.357	45	18
13	1049.216	100	18
14	1075.254	75	16
15	1097.434	56	15
16	1175.547	20	13
17	1241.123	51	68
18	1306.699	32	31
19	1391.562	50	25
20	1419.529	44	25
21	1493.784	54	83

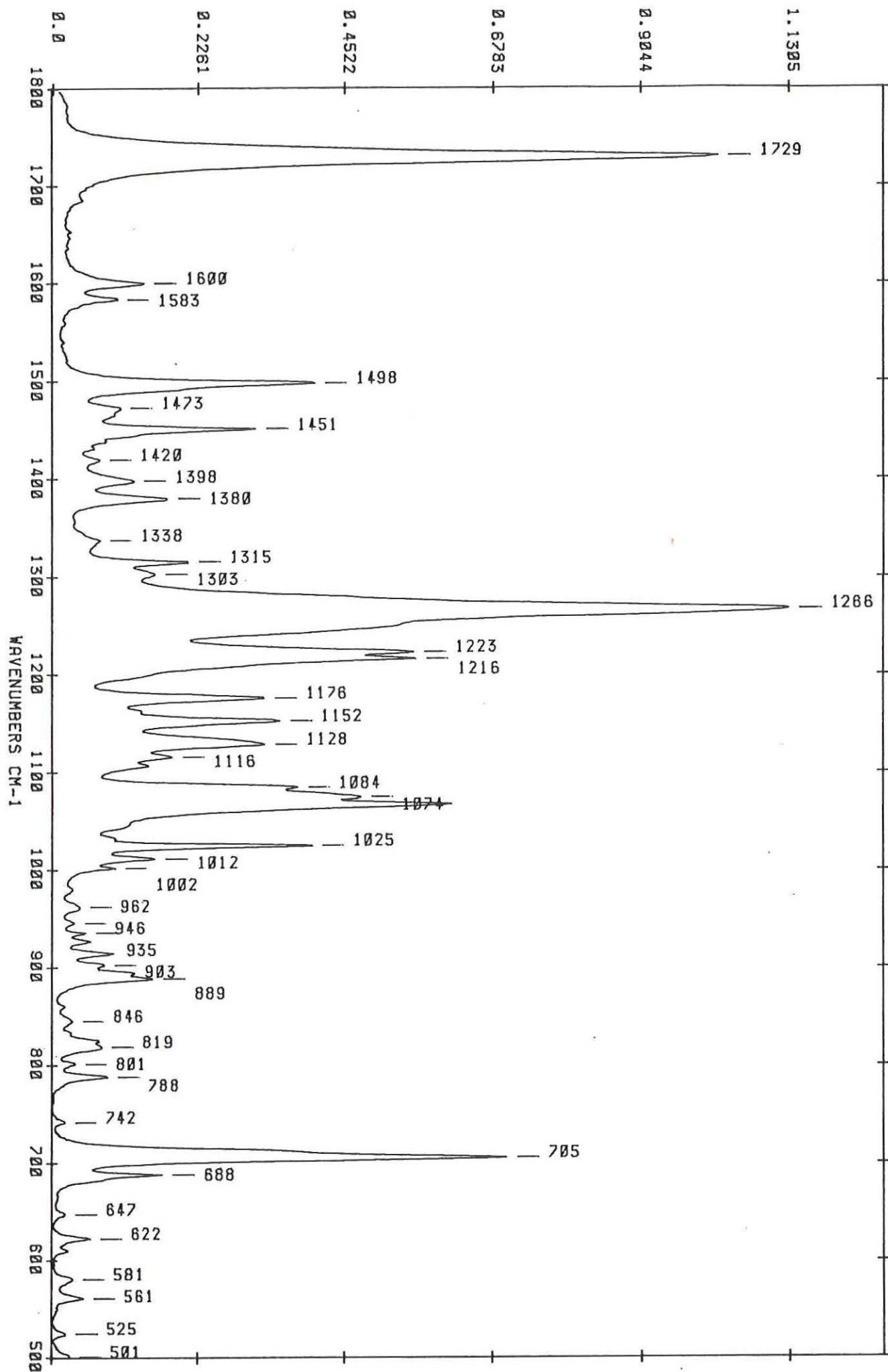


COMPOUND NAME: 17 BETA-ESTRADIOL-3-BENZOATE  
 SYSTEMATIC NAME: ESTRA-1,3,5(10)TRIENE-3,17 DIOL-(17 BETA)-3-BENZOATE  
 CA NAME: ESTRA-1,3,5(10)TRIENE-3,17 DIOL-(17 BETA)-3-BENZOATE  
 CAS NUMBER: 50-50-0  
 MERCK INDEX NO (10 ED): 3650  
 STERALDIDS NUMBER: E-970  
 MOLECULAR FORMULE: C25H28O3  
 MOLECULAR WEIGHT: 376.5  
 MELTING POINT: 191-196  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: BENOVOCYCLIN, BENZOETROFOL  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-9000  
 CHARGE NUMBER: 12F-3792  
 FLS: HOR42009

ORIG. PEAK TABLE: HOR42009.PEAK=D2--->ADEQ. PEAK TABLE: HOR42009.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 18 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	687.577	15	7
2	704.935	62	10
3	889.127	14	14
4	1011.600	14	9
5	1025.101	36	6
6	1066.569	55	13
7	1128.288	29	15
8	1152.396	31	11
9	1175.541	29	9
10	1216.044	50	14
11	1222.794	49	12
12	1266.190	100	21
13	1315.373	19	9
14	1379.985	16	10
15	1451.347	28	7
16	1497.636	36	10
17	1599.858	13	11
18	1729.081	91	14



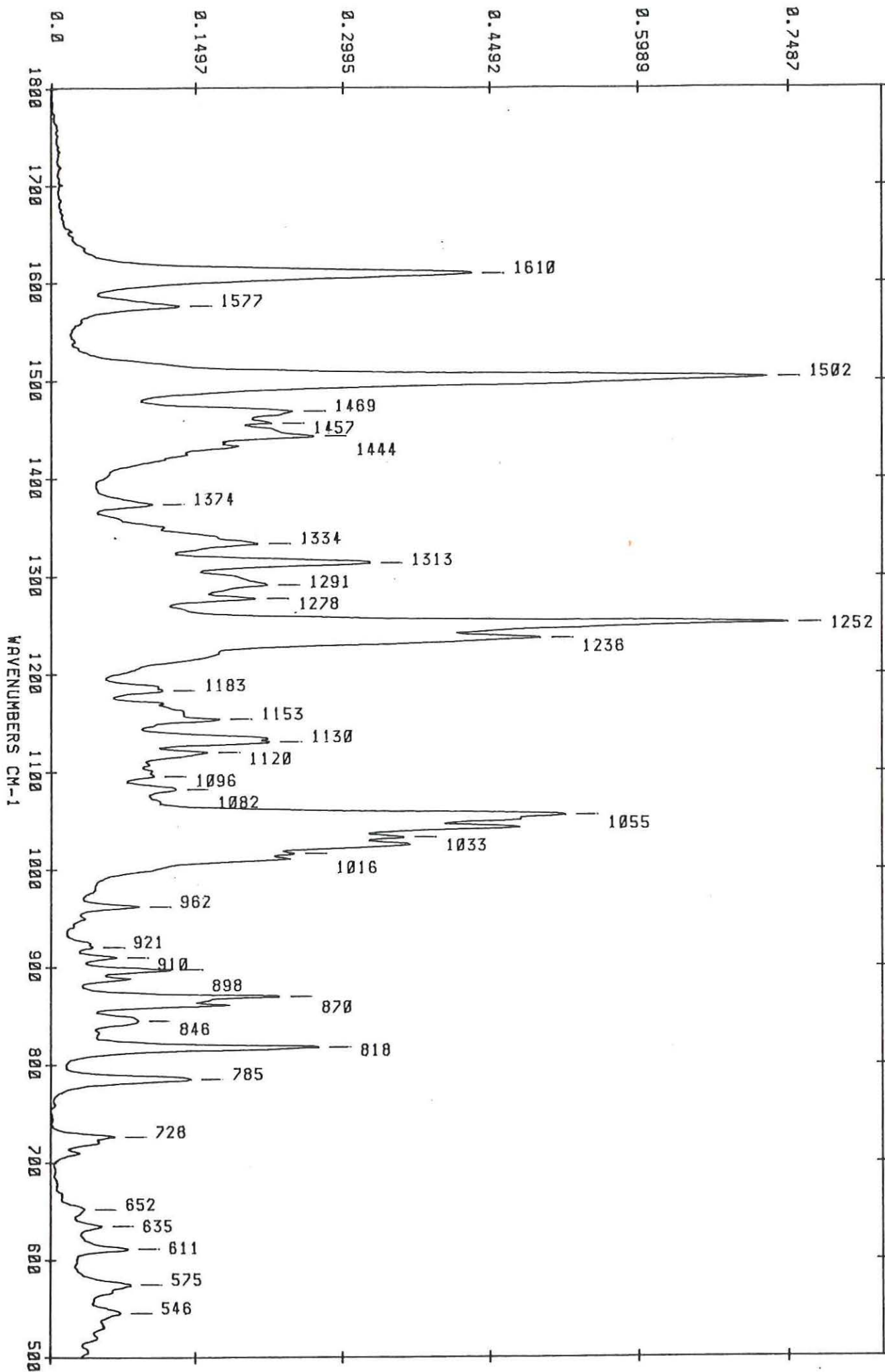


COMPOUND NAME: BETA-ESTRADIOL-3-METHYLETHER  
 SYSTEMATIC NAME: 1,3,5(10)-ESTRATRIEN-3,17 BETA-DIOL-3-METHYLETHER  
 CA NAME: ESTRA-1,3,5(10)-TRIEN-17-OL, 3 METHOXY-(17-BETA)  
 CAS NUMBER: 1035-77-4  
 STERALIDS NUMBER: E 1090  
 MOLECULAR FORMULE: C19H26O2  
 MOLECULAR WEIGHT: 286  
 MELTING POINT: 118-119  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E 9250  
 CHARGE NUMBER: 60F-4012  
 FLS: HOR42013

ORIG. PEAK TABLE: HOR42013.PEAK=D2--->ADEQ. PEAK TABLE: HOR42013.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

23 PEAKS.

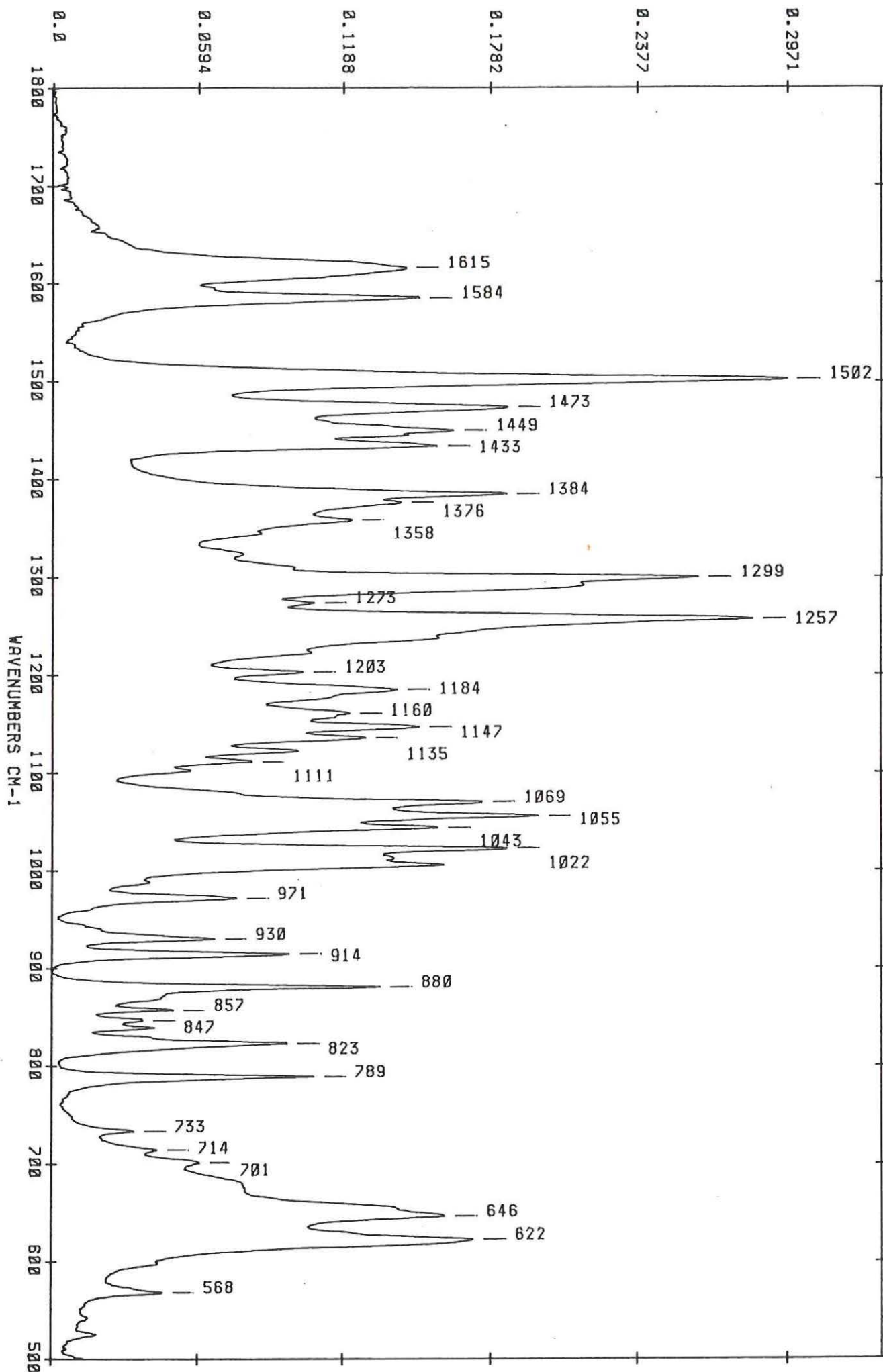
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	784.982	19	9
2	817.771	37	7
3	869.846	31	6
4	897.812	17	8
5	1025.107	49	13
6	1042.466	64	9
7	1055.002	70	12
8	1119.614	22	14
9	1130.222	30	16
10	1153.366	23	24
11	1183.262	16	16
12	1236.301	67	17
13	1251.731	100	12
14	1277.768	28	12
15	1291.269	30	31
16	1313.450	44	13
17	1333.701	28	23
18	1374.204	14	14
19	1443.638	36	20
20	1468.711	33	14
21	1502.463	97	14
22	1576.719	18	13
23	1609.507	58	13



COMPOUND NAME: 17 ALPHA-ETHYNYLESTRADIOL  
 SYSTEMATIC NAME: 17 ALPHA-ETHYNYL-1,3,5(10)-ESTRADIENE-3,17 BETA-DIOL  
 CA NAME: 19 NORPREGNA-1,3,5(10)-TRIEN-20 YNE-3,17-DIOL 17 ALPHA  
 CAS NUMBER: 57-63-6  
 MERCK INDEX NO (10 ED): 3683  
 STERALIDS NUMBER: E 1550  
 MOLECULAR FORMULE: C20H24O2  
 MOLECULAR WEIGHT: 296.4  
 MELTING POINT: 182-184  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-4876  
 CHARGE NUMBER: 103F-0232  
 FLS: HOR42016

ORIG. PEAK TABLE: HOR42016.PEAK=D2--->ADEQ. PEAK TABLE: HOR42016.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 32 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	567.997	15	14
2	622.001	58	21
3	646.110	54	28
4	788.834	36	6
5	822.587	32	10
6	857.303	17	7
7	880.448	45	7
8	914.201	33	7
9	929.630	22	7
10	971.098	25	9
11	1005.814	54	14
12	1022.208	62	8
13	1043.424	53	11
14	1054.996	67	13
15	1069.462	59	12
16	1110.929	28	13
17	1121.537	34	14
18	1135.038	43	14
19	1146.610	50	16
20	1160.111	41	19
21	1184.220	48	22
22	1202.543	35	14
23	1256.547	95	21
24	1298.979	88	24
25	1357.804	41	25
26	1383.842	62	15
27	1433.024	53	9
28	1449.418	55	25
29	1472.563	62	15
30	1501.493	100	14
31	1584.428	50	13
32	1615.287	49	27

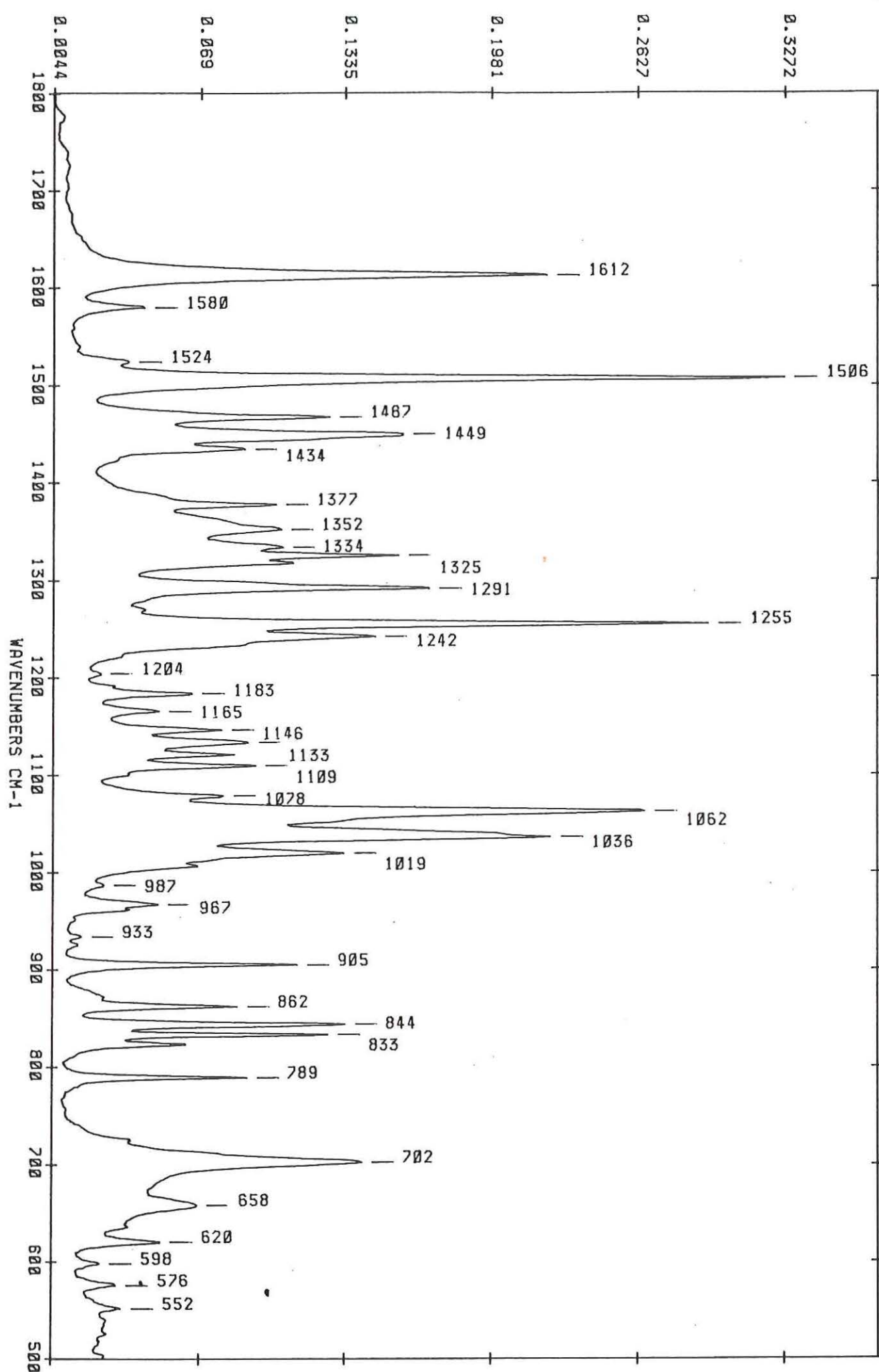




COMPOUND NAME: MESTRANOL  
 SYSTEMATIC NAME: 3-METHOXY-19-NORPREGNA-1,3,5(10)-TRIEN-20-YN-17-OL  
 CA NAME: 19-NORPREGNA-1,3,5(10)-TRIEN-20-YN-17-OL, METHOXY-, (17) ALPHA)  
 CAS NUMBER: 72-33-3  
 MERCK INDEX NO (10 ED): 5762  
 STERALIDS NUMBER: -  
 MOLECULAR FORMULE: C21H26O2  
 MOLECULAR WEIGHT: 310.4  
 MELTING POINT: 150-151  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: 17 ALPHA ETHYNYLESTRADIOL 3-METHYLETHER  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-5001  
 CHARGE NUMBER: 103F-0436  
 FILS: HOR42031

ORIG. PEAK TABLE: HOR42031.PEAK=D2--->ADEQ. PEAK TABLE: HOR42031.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 30 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	620.072	16	9
2	657.682	21	25
3	702.042	43	18
4	788.834	27	4
5	822.587	19	7
6	833.195	39	4
7	843.803	41	7
8	862.125	26	7
9	904.557	34	5
10	967.240	16	15
11	1019.315	41	13
12	1035.709	69	14
13	1061.747	81	11
14	1109.000	29	7
15	1120.573	26	8
16	1133.109	28	14
17	1145.646	24	8
18	1164.933	16	11
19	1183.256	20	8
20	1242.082	45	21
21	1254.618	90	6
22	1291.264	52	10
23	1325.016	48	8
24	1352.018	32	22
25	1377.091	31	9
26	1449.418	49	13
27	1466.777	39	10
28	1506.315	100	7
29	1579.606	14	8
30	1612.394	68	9



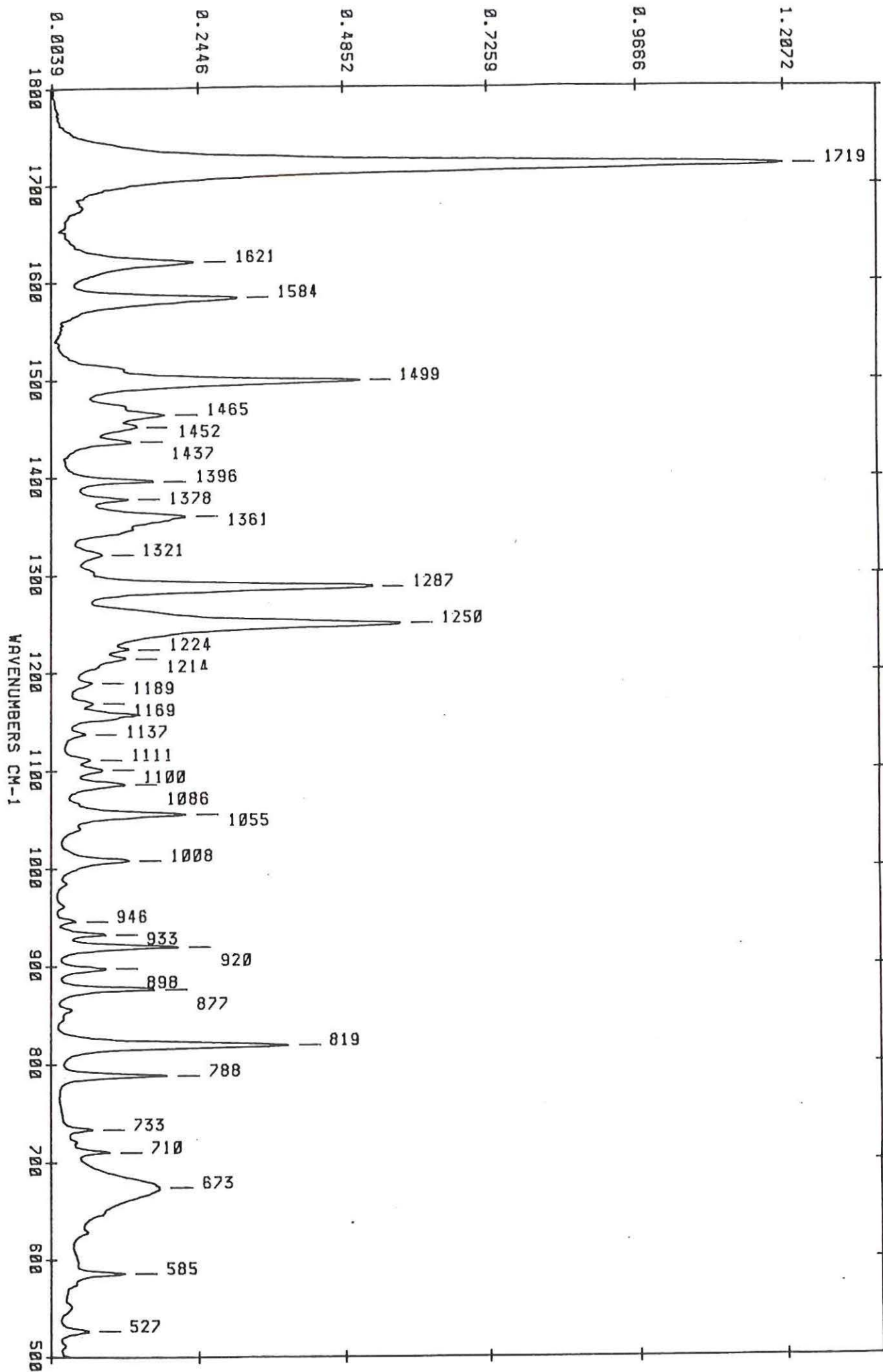
FLS-HOR42031

COMPOUND NAME: ESTRONE  
 SYSTEMATIC NAME: 1,3,5(10)-ESTRATRIEN-3-OL-17-ONE  
 CA NAME: ESTRA-1,3,5(10)-TRIEN-17-ONE,3 HYDROXY  
 CAS NUMBER: 53-16-7  
 MERCK INDEX NO (10 ED): 3655  
 STERALIDS NUMBER: E 2300  
 MOLECULAR FORMULE: C18H22O2  
 MOLECULAR WEIGHT: 270.4  
 MELTING POINT: 251-254  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: ESTROL,KESTRONE,HENFORMON,DESTRONE  
 MANUFACTURER: MERCK  
 MANUFACTURER REFERENCE: 8966  
 CHARGE NUMBER: 9009821  
 FLS: HOR42015

ORIG. PEAK TABLE: HOR42015.PEAK=D2--->ADEQ. PEAK TABLE: HOR42015.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 14 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	673.111	15	38
2	787.870	16	5
3	818.729	32	7
4	876.591	14	5
5	919.987	18	6
6	1054.996	18	7
7	1249.796	48	12
8	1287.406	44	9
9	1360.697	18	22
10	1396.379	14	6
11	1498.600	43	9
12	1584.428	25	11
13	1621.074	20	11
14	1719.438	100	14



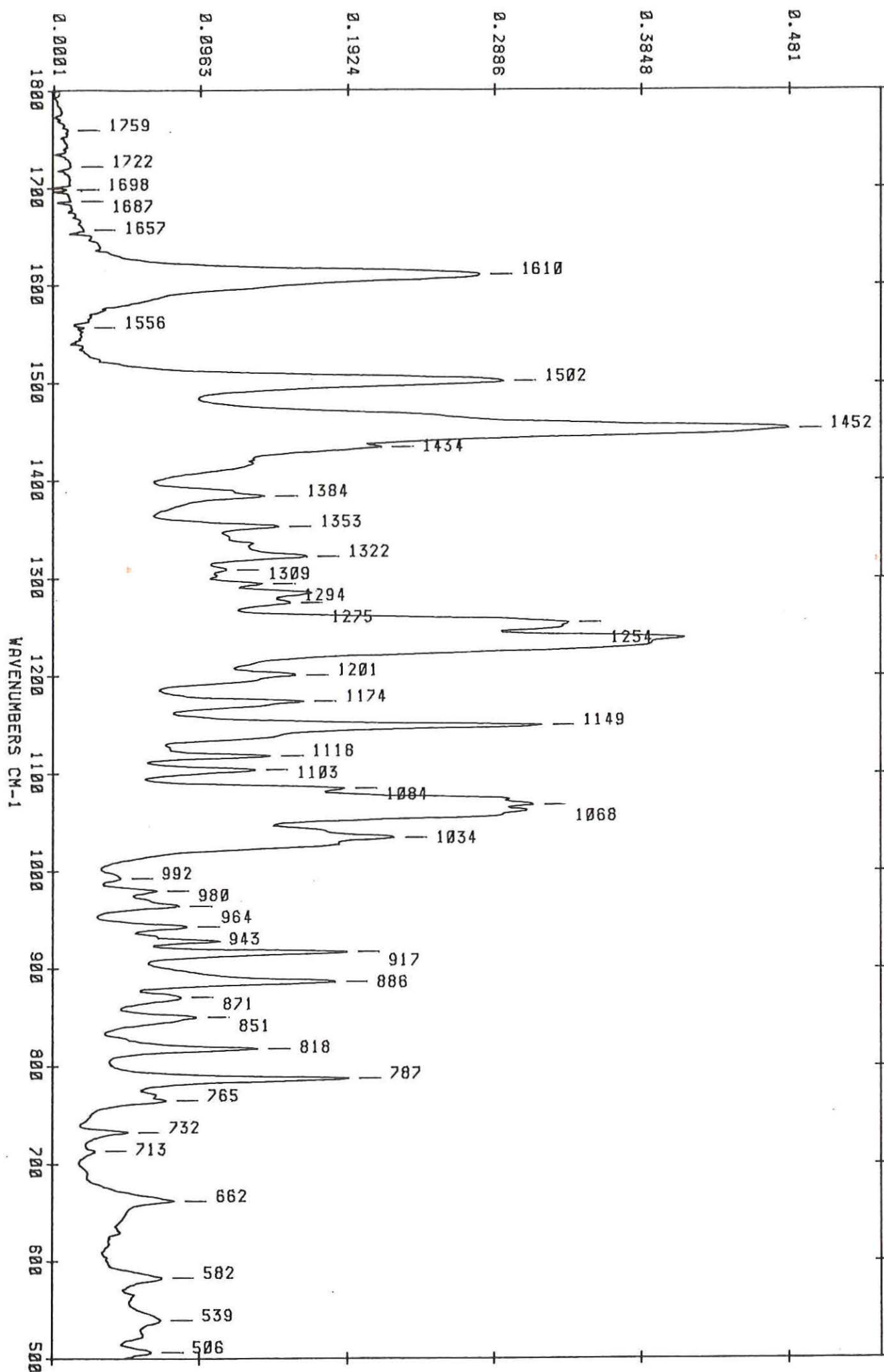


FLS-HOR42015

COMPOUND NAME: ESTRIOL  
 SYSTEMATIC NAME: ESTRA-1,3,5(10)-TRIENE-3,16,17 TRIOL  
 CA NAME: ESTRA-1,3,5(10)-TRIENE-3,16,17-TRIOL( 16 ALPHA, 17 BETA)  
 CAS NUMBER: 50-27-1  
 MERCK INDEX NO (10 ED): 3654  
 STERALIDS NUMBER: E 2600  
 MOLECULAR FORMULE: C18H24O3  
 MOLECULAR WEIGHT: 288.39  
 MELTING POINT: 282  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: TRIHYDROXYESTRIN, ACEFIMINE, OVESTIN, OVESTERIN  
 MANUFACTURER: MERCK  
 MANUFACTURER REFERENCE: 3727  
 CHARGE NUMBER: 8563028  
 FLS: HOR42014

ORIG. PEAK TABLE: HOR42014.PEAK=D2--->ADEQ. PEAK TABLE: HOR42014.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 28 PEAKS.

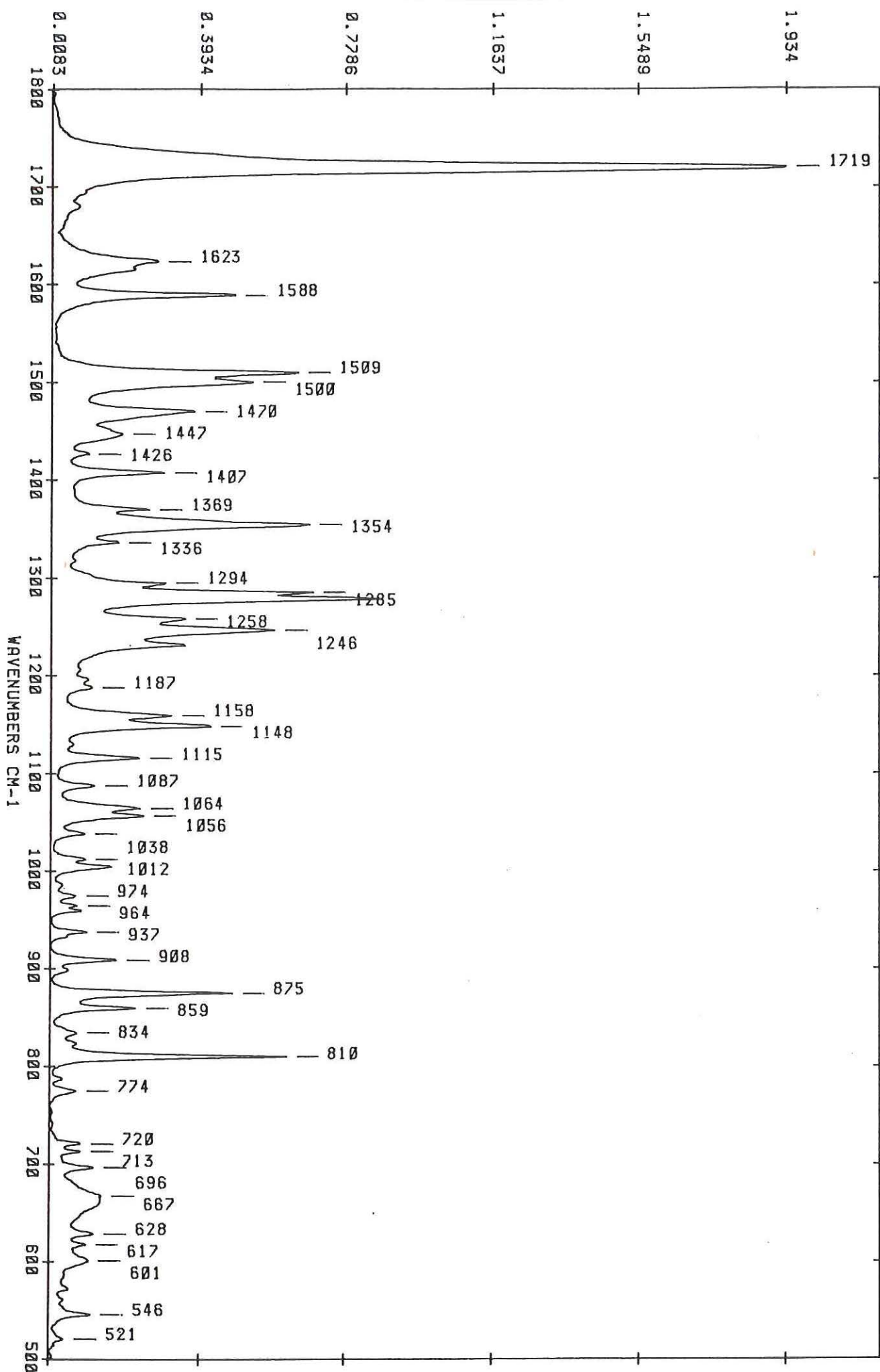
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	582.462	15	20
2	661.539	17	17
3	786.906	40	8
4	817.765	28	9
5	850.553	20	15
6	870.804	17	18
7	886.234	33	11
8	917.094	40	8
9	927.701	23	9
10	943.131	18	10
11	964.347	17	13
12	1033.781	46	26
13	1061.747	65	28
14	1067.533	65	33
15	1103.214	27	11
16	1117.680	30	8
17	1148.539	67	10
18	1173.612	34	14
19	1200.614	33	24
20	1238.224	86	38
21	1253.654	70	19
22	1284.513	35	15
23	1322.123	34	16
24	1352.983	31	12
25	1383.842	29	18
26	1452.311	100	22
27	1501.493	61	15
28	1610.466	58	19



COMPOUND NAME: EQUILIN  
 SYSTEMATIC NAME: 3-HYDROXYESTRA-1,2,5(10),7-TETRAEN-17-ONE  
 CA NAME: ESTRA-1,3,5(10),7-TETRAEN-17-ONE 3-HYDROXY  
 CAS NUMBER: 474-86-2  
 MERCK INDEX NO (10 ED): 3580  
 STERALDOIDS NUMBER: E 600  
 MOLECULAR FORMULE: C18H20O2  
 MOLECULAR WEIGHT: 268.3  
 MELTING POINT: 241-241.5  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SERVA  
 MANUFACTURER REFERENCE: 21055  
 FLS: HOR42054

ORIG. PEAK TABLE: HOR42054.PEAK=D2--->ADEO. PEAK TABLE: HOR42054.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 15 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	810.056	32	5
2	874.668	25	5
3	1055.966	13	9
4	1147.580	22	8
5	1158.188	17	10
6	1245.945	31	11
7	1277.768	45	7
8	1353.953	35	10
9	1406.992	15	7
10	1469.675	20	11
11	1499.570	28	12
12	1509.214	34	6
13	1588.291	25	6
14	1623.008	15	20
15	1719.443	100	12



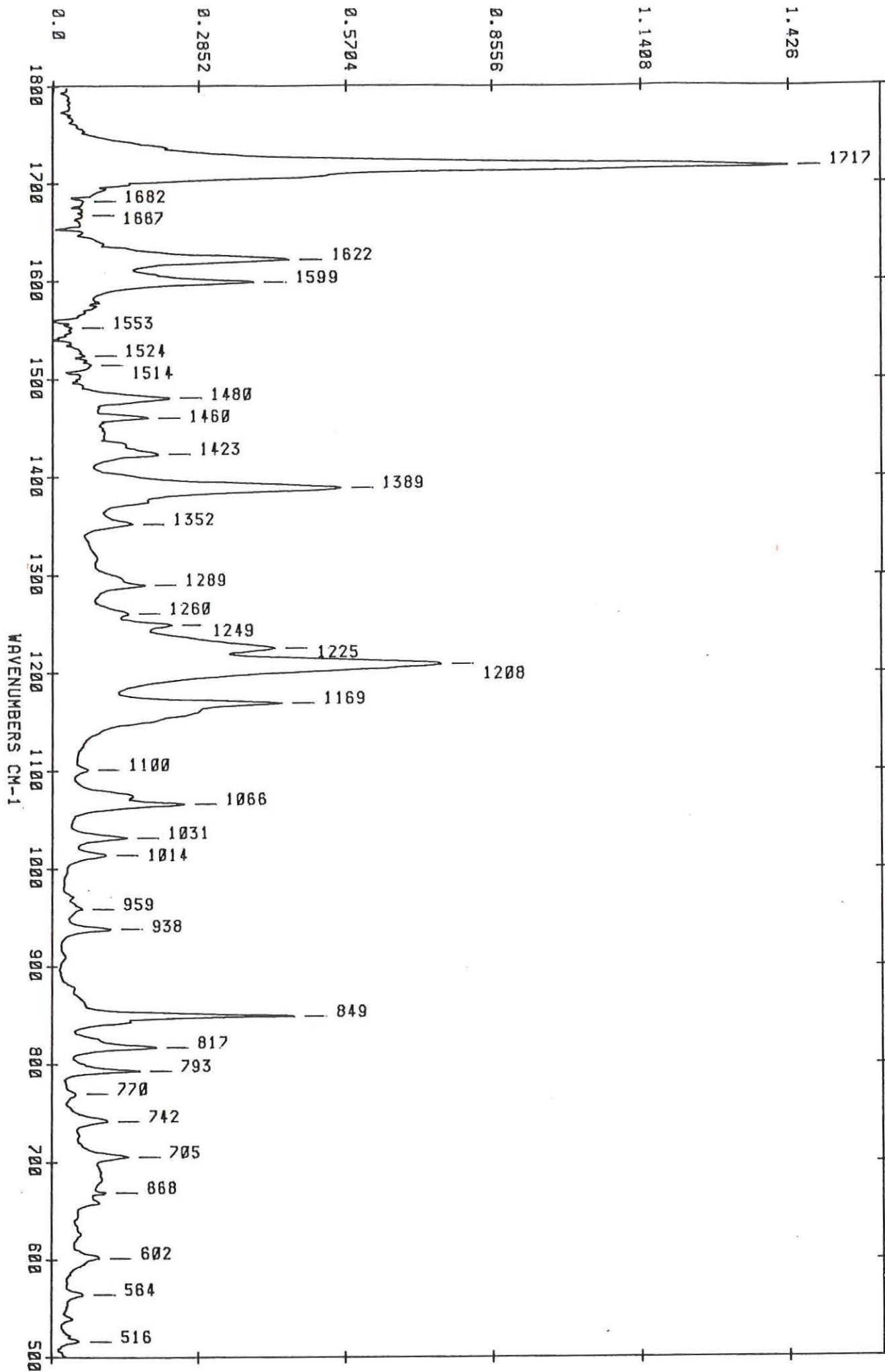
FLS=HOR42054



COMPOUND NAME: EQUILENIN  
 SYSTEMATIC NAME: 3-HYDROXYESTRA-1,3,5,7,9-PENTAEN-17-ONE  
 CA NAME: ESTRA-1,3,5,7,9-PENTAEN-17-ONE,3-HYDROXY  
 CAS NUMBER: 517-09-9  
 MERCK INDEX NO (10 ED): 3579  
 STERALIDS NUMBER: E 400  
 MOLECULAR FORMULE: C18H18O2  
 MOLECULAR WEIGHT: 266.3  
 MELTING POINT: 248-252  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 NG / 100 MG KBR  
 MANUFACTURER: SERVA  
 MANUFACTURER REFERENCE: 21058  
 FLS: HOR42055

ORIG. PEAK TABLE: HOR42055.PEAK=D2--->ADEQ. PEAK TABLE: HOR42055.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	816.806	14	9
2	848.630	33	5
3	1065.610	18	16
4	1168.796	31	18
5	1208.335	53	17
6	1224.729	31	23
7	1388.669	39	14
8	1423.386	14	14
9	1460.032	13	8
10	1480.283	16	11
11	1598.899	28	11
12	1622.044	32	11
13	1716.550	100	12

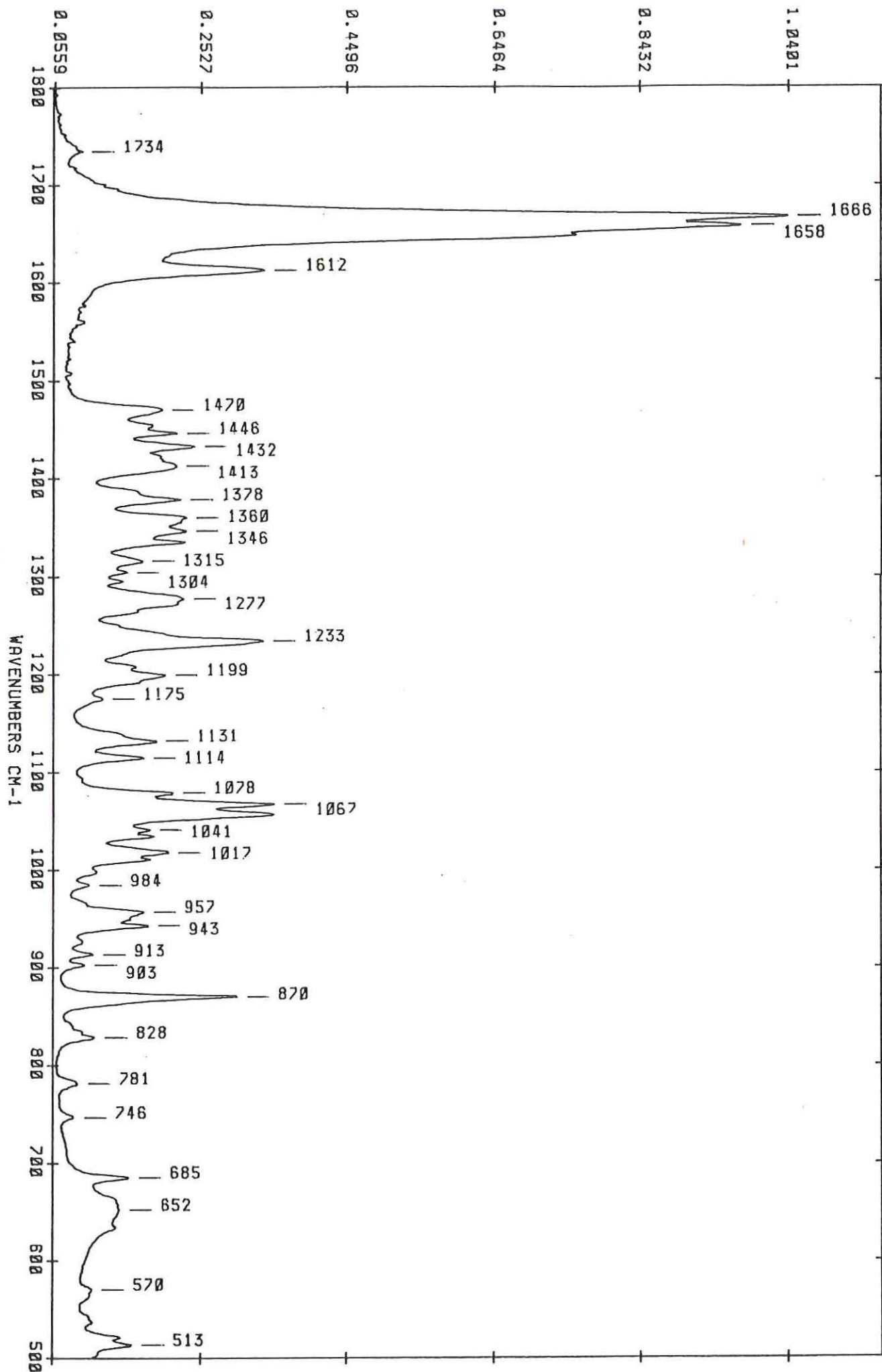


COMPOUND NAME: 17 BETA-TESTOSTERONE  
 SYSTEMATIC NAME: DELTA 4-ANDROSTEN-17 BETA-OL-3-ONE  
 CA NAME: ANDROST-4-EN-3 ONE, 17 HYDROXY-, (17 BETA)  
 CAS NUMBER: 58-22-0  
 MERCK INDEX NO (10 ED): 9000  
 STERALIDS NUMBER: A 6950  
 MOLECULAR FORMULE: C19H28O2  
 MOLECULAR WEIGHT: 288.4  
 MELTING POINT: 155  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: MALESTRONE, ORQUISTERONE, PRIMOTEST, PRIMOTESTON  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: T-1500  
 CHARGE NUMBER: 63F-0616  
 FLS: HOR42020

ORIG. PEAK TABLE: HOR42020.PEAK=D2--->ADEQ. PEAK TABLE: HOR42020.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 18 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	869.841	25	7
2	943.132	13	12
3	956.633	13	10
4	1017.388	16	20
5	1055.962	31	14
6	1066.570	31	10
7	1113.823	13	10
8	1131.182	14	16
9	1198.687	16	19
10	1233.404	29	13
11	1276.800	18	26
12	1359.735	19	12
13	1378.057	18	18
14	1432.061	20	14
15	1469.671	15	14
16	1612.396	29	15
17	1657.721	94	33
18	1666.400	100	14

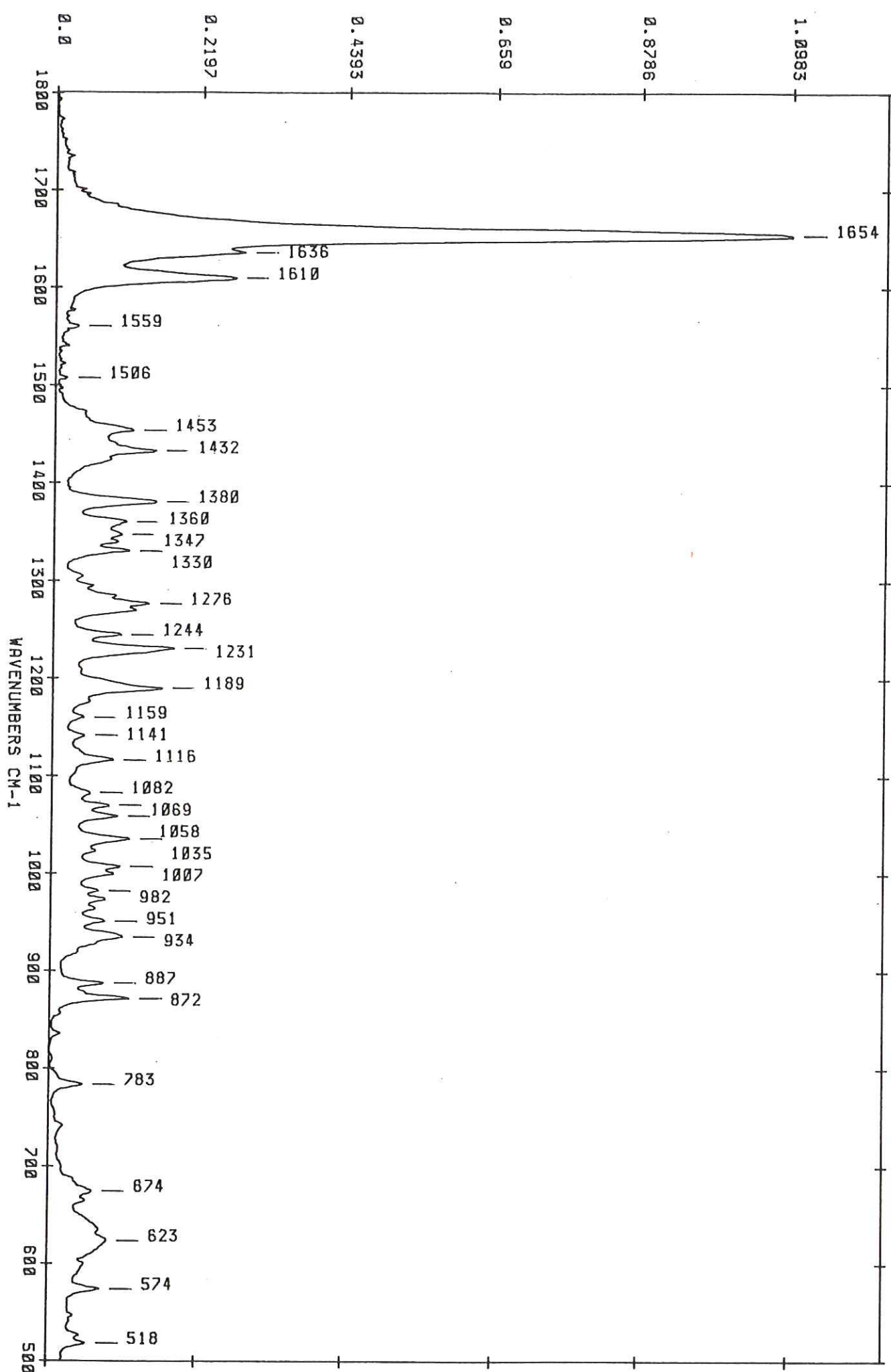




COMPOUND NAME: 17 ALPHA TESTOSTERONE, EPI-TESTOSTERONE  
SYSTEMATIC NAME: 17 ALPHA-HYDROXYANDROST-4-EN-3-ONE  
CA NAME: ANDROST-4-EN-3-ONE, 17 HYDROXY-(17 ALPHA)  
CAS NUMBER: 481-30-1  
MOLECULAR FORMULE: C19H28O2  
MOLECULAR WEIGHT: 288.4  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
MANUFACTURER: ORGANON  
FLS: HOR42101

ORIG. PEAK TABLE: HOR42101.PEAK=D2--->ADEQ. PEAK TABLE: HOR42101.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90  
7 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	1189.048	15	12
2	1230.515	16	12
3	1275.840	13	23
4	1379.990	14	11
5	1432.065	14	11
6	1609.507	25	13
7	1653.867	100	16

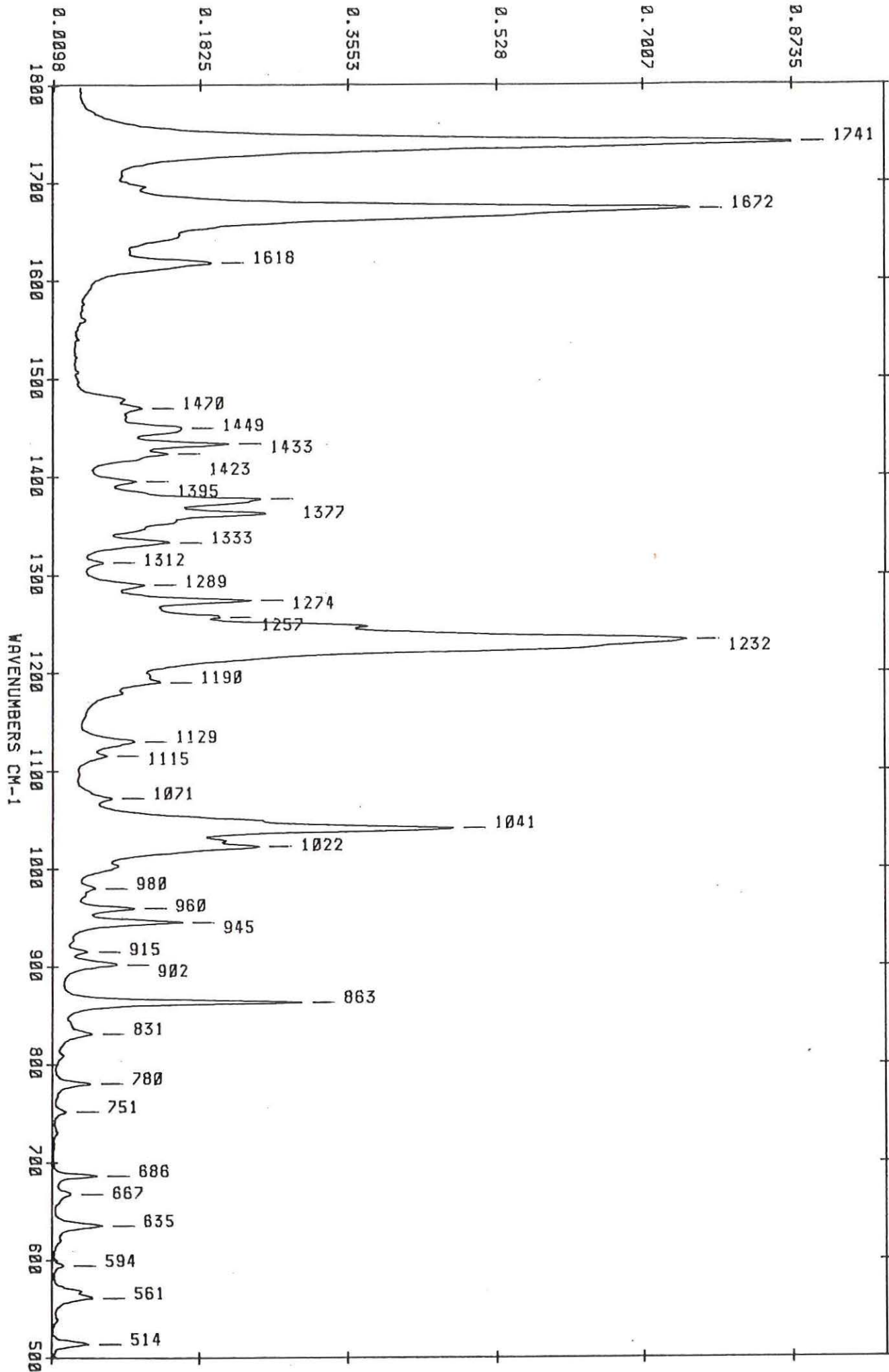


COMPOUND NAME: TESTOSTERONE-ACETATE  
 CA NAME: ANDROST-4-EN-3-ONE,17-(ACETYLOXY),(17 BETA)  
 CAS NUMBER: 1045-69-8  
 MERCK INDEX NO (10 ED): 9000  
 STERALIDS NUMBER: A 6951  
 MOLECULAR FORMULE: C21H30O3  
 MOLECULAR WEIGHT: 330.4  
 MELTING POINT: 140-141  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: ACETO-STERANDRYL, ACETO-TESTOVIRON  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: T-1625  
 CHARGE NUMBER: 23F-0270  
 FLS: HOR42029

ORIG. PEAK TABLE: HOR42029.PEAK=D2--->ADEQ. PEAK TABLE: HOR42029.AFKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

14 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	863.090	35	5
2	945.061	19	7
3	1022.209	29	15
4	1040.532	55	13
5	1232.439	86	22
6	1273.907	28	10
7	1332.733	17	12
8	1361.663	30	11
9	1377.093	29	16
10	1433.026	25	9
11	1449.420	18	21
12	1618.182	22	14
13	1672.186	87	17
14	1740.656	100	14



FLS-HOR42029

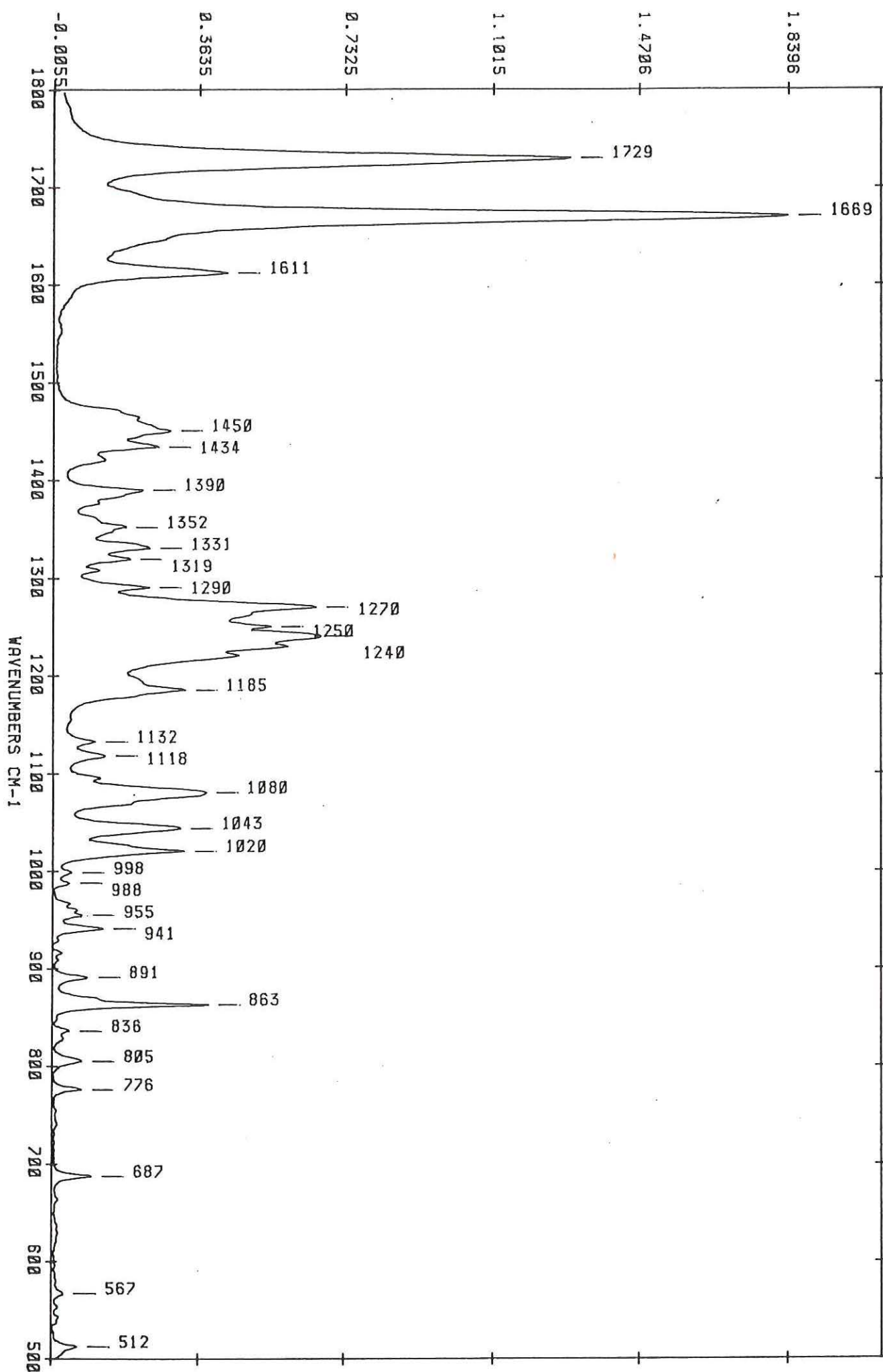


COMPOUND NAME: TESTOSTERONE PROPIONATE  
 SYSTEMATIC NAME: DELTA 4-ANDROSTENE-17 BETA-PROPIONATE-3-ONE  
 CA NAME: ANDROST-4-EN-3-ONE, 17-(1-OXOPROPOXY)-, (17 BETA)  
 CAS NUMBER: 57-85-2  
 MERCK INDEX NO (10 ED): 9006  
 STERALIDS NUMBER: A-7000  
 MOLECULAR FORMULE: C22H32O3  
 MOLECULAR WEIGHT: 344  
 MELTING POINT: 118-122  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: T-1875  
 CHARGE NUMBER: 13F-0754  
 FLS: HOR42028

ORIG. PEAK TABLE: HOR42028.PEAK=D2--->ADEQ. PEAK TABLE: HOR42028.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

12 PEAKS.

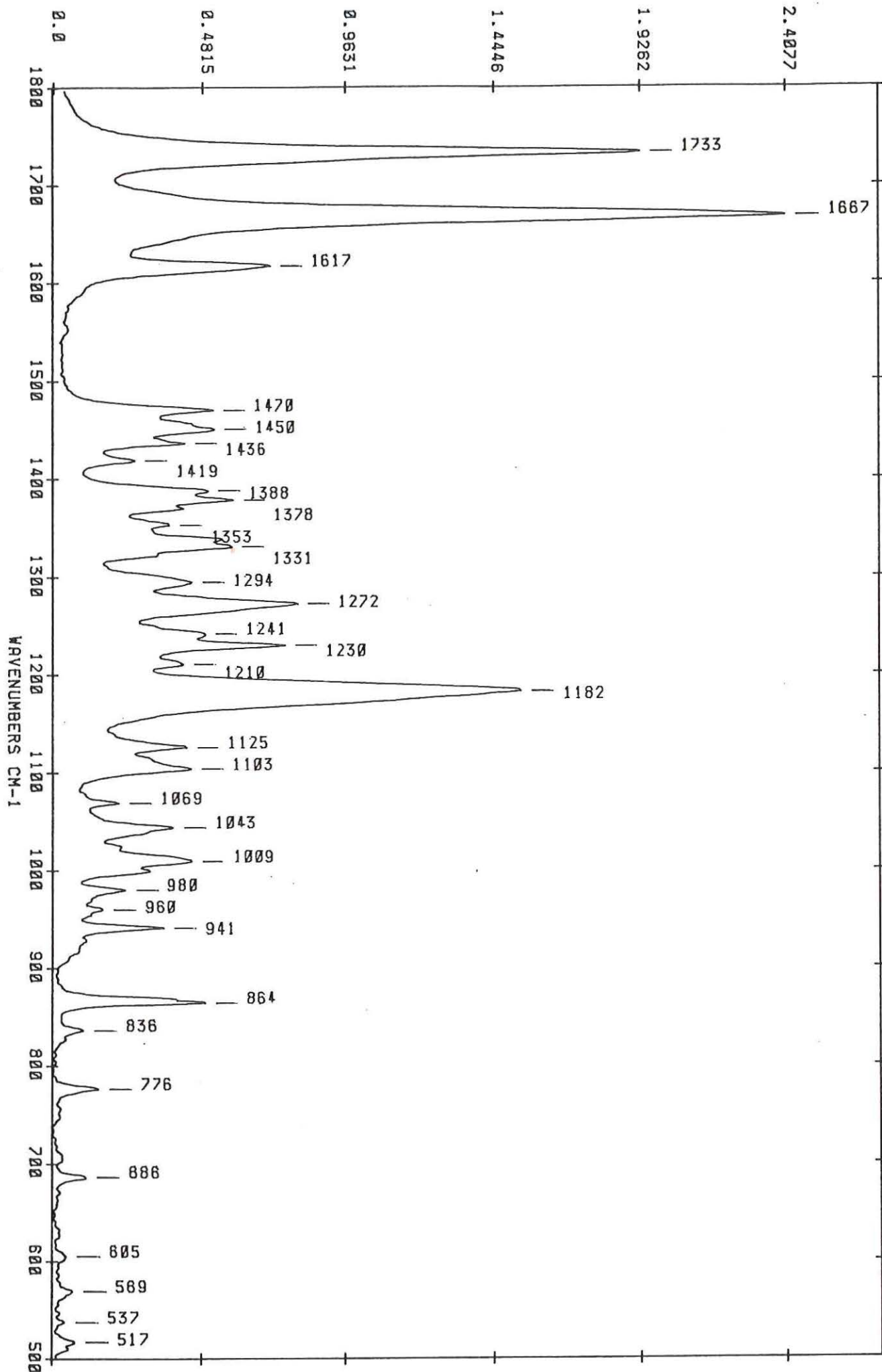
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	863.090	21	5
2	1020.281	18	9
3	1043.425	17	11
4	1080.071	21	15
5	1185.186	18	16
6	1240.154	37	25
7	1270.049	36	14
8	1330.804	13	14
9	1450.384	16	44
10	1611.432	24	13
11	1669.293	100	14
12	1729.083	70	16



COMPOUND NAME: TESTOSTERONE ISOCAPROATE  
 MOLECULAR FORMULE: C<sub>25</sub>H<sub>38</sub>O<sub>3</sub>  
 MOLECULAR WEIGHT: 386  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: ORGANON  
 MANUFACTURER REFERENCE: 770  
 CHARGE NUMBER: TIC Z 135  
 FLS: HOR42071

ORIG. PEAK TABLE: HOR42071.PEAK=D2--->ADEO. PEAK TABLE: HOR42071.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 17 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	864.060	21	9
2	941.208	15	8
3	1008.713	19	25
4	1043.430	16	15
5	1103.220	19	15
6	1125.400	18	13
7	1182.297	64	27
8	1229.551	32	12
9	1271.982	33	18
10	1294.162	19	23
11	1330.808	24	25
12	1378.061	24	29
13	1450.388	22	22
14	1469.675	22	12
15	1617.222	30	14
16	1667.368	100	19
17	1732.944	80	14



FLS-HOR42071

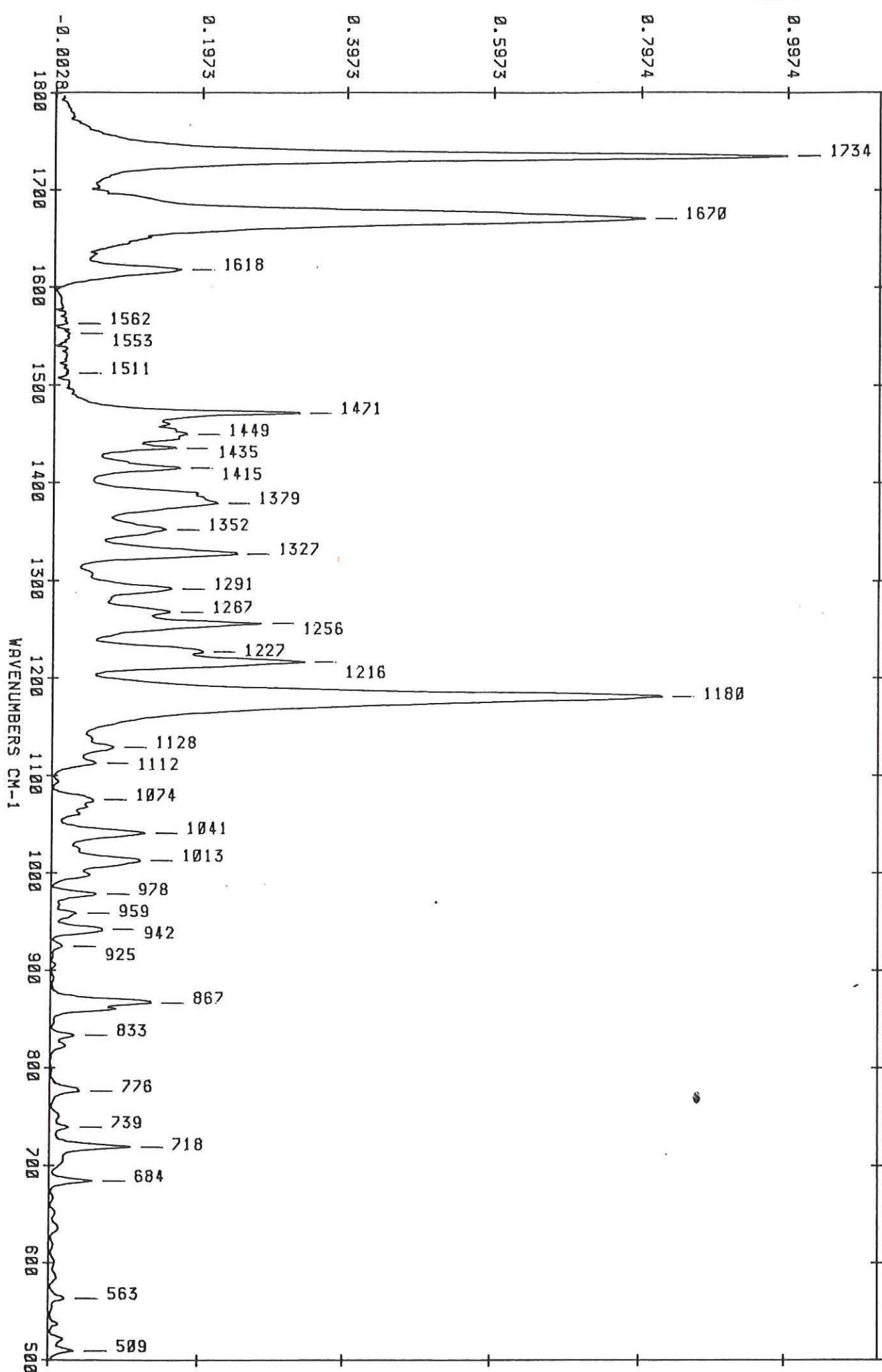
COMPOUND NAME: TESTOSTERONE DECANOATE  
SYSTEMATIC NAME: DELTA 4-ANDROSTENE-17 BETA-DECANOATE-3-ONE  
MOLECULAR FORMULE: C28H46O3  
MOLECULAR WEIGHT: 430  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
MANUFACTURER: ORGANON  
MANUFACTURER REFERENCE: 767  
CHARGE NUMBER: TEDEC Z 87  
FLS: HOR42070

21

ORIG. PEAK TABLE: HOR42070.PEAK=D2--->ADEQ. PEAK TABLE: HOR42070.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90  
13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	866.953	13	13
2	1180.368	83	14
3	1216.050	34	14
4	1255.588	28	9
5	1291.269	16	14
6	1326.951	25	14
7	1352.024	15	18
8	1379.026	22	26
9	1414.707	17	11
10	1470.640	33	7
11	1618.186	17	13
12	1670.261	80	18
13	1733.909	100	10





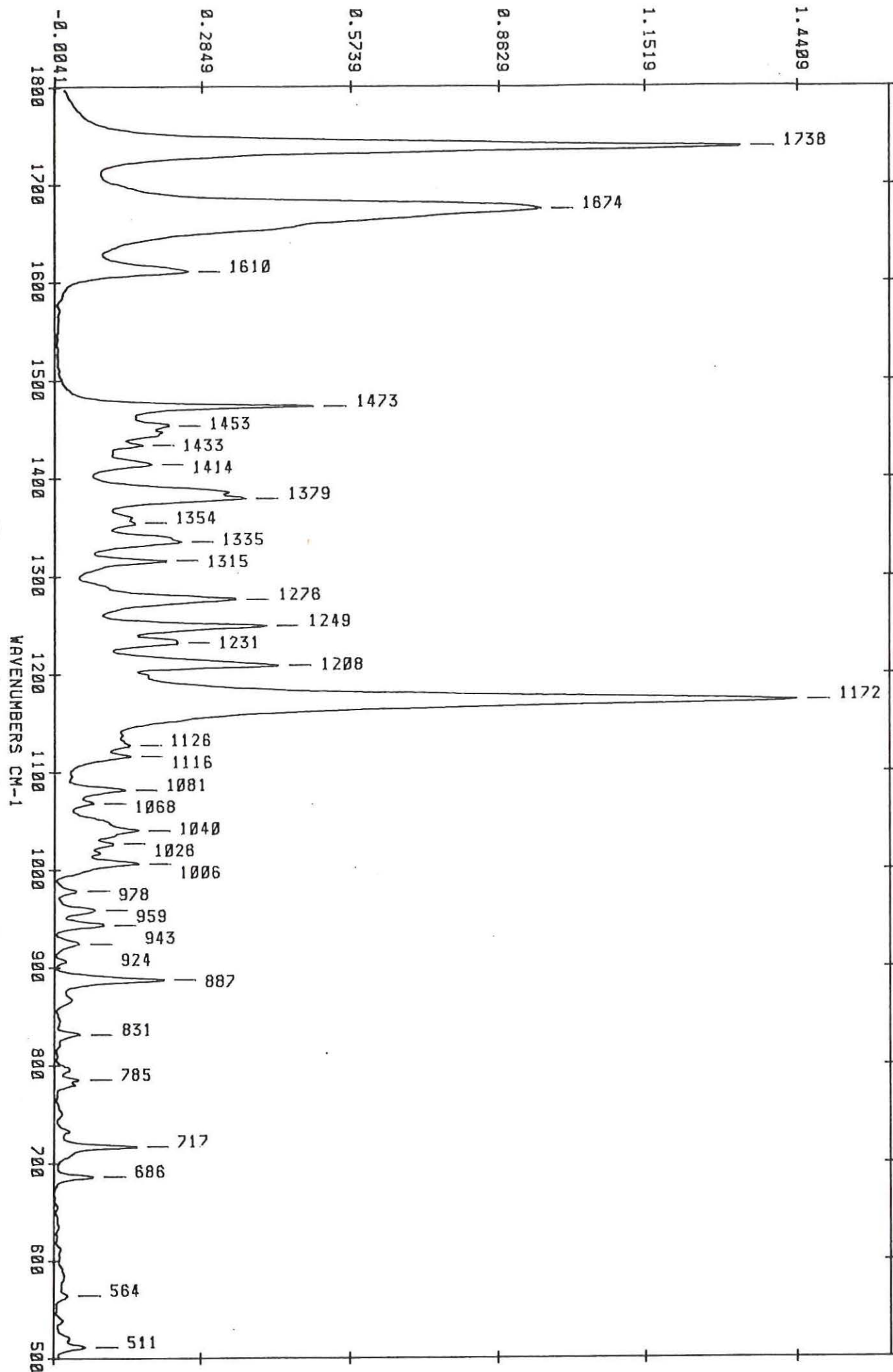
FLS-HOR42070

COMPOUND NAME: TESTOSTERONE UNDECANOATE  
MOLECULAR FORMULE: C30H47O3  
MOLECULAR WEIGHT: 455  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
MANUFACTURER: ORGANON  
MANUFACTURER REFERENCE: 768  
CHARGE NUMBER: 1UNDEC Z 37  
FLS: HOR42073

ORIG. PEAK TABLE: HOR42073.PEAK=D2--->ADEQ. PEAK TABLE: HOR42073.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90

12 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	887.204	15	6
2	1171.689	100	14
3	1208.335	30	11
4	1248.838	29	10
5	1275.840	25	11
6	1315.378	15	8
7	1334.665	17	16
8	1379.026	26	18
9	1472.568	35	6
10	1610.471	18	14
11	1674.119	66	25
12	1737.766	93	12



FLS-HOR42073

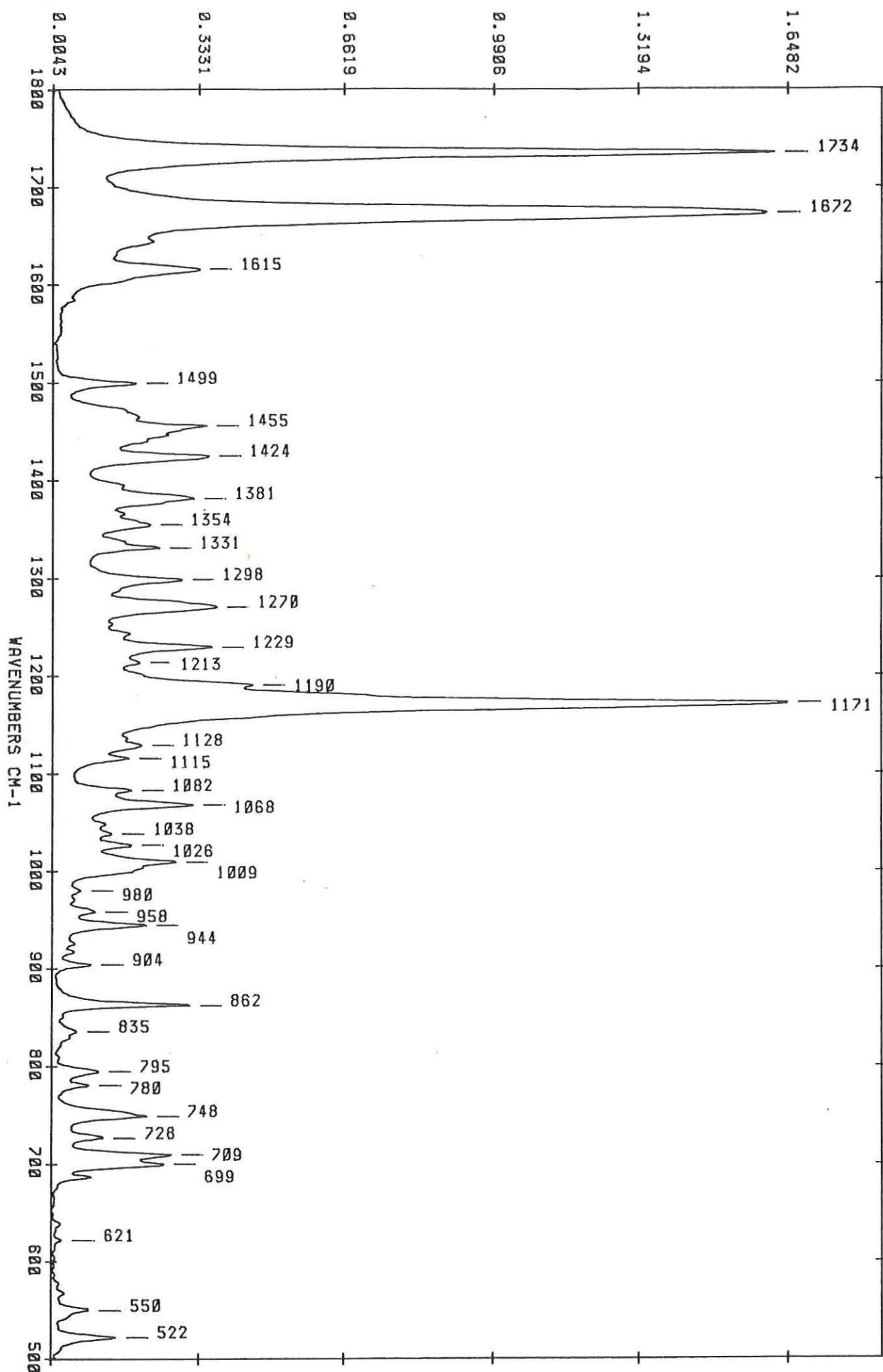
COMPOUND NAME: TESTOSTERONE PHENYLPROPIONATE  
SYSTEMATIC NAME: 17 $\alpha$ -(PHENYLACETYL)OXYANDROST-4-EN-3-ONE  
MOLECULAR FORMULE: C<sub>28</sub>H<sub>36</sub>O<sub>3</sub>  
MOLECULAR WEIGHT: 420  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
MANUFACTURER: ORGANON  
MANUFACTURER REFERENCE: 769  
CHARGE NUMBER: TPP Z 159  
FLS: HOR42072

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ORIG. PEAK TABLE: HOR42072.PEAK=D2--->ADEQ. PEAK TABLE: HOR42072.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90

17 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	699.155	15	9
2	708.798	16	6
3	748.337	13	12
4	862.131	19	6
5	944.101	13	8
6	1008.713	17	18
7	1067.539	19	10
8	1170.725	100	14
9	1228.586	22	11
10	1270.054	23	17
11	1298.020	18	11
12	1380.955	20	16
13	1424.351	22	12
14	1455.210	21	22
15	1615.293	20	17
16	1672.190	97	19
17	1733.909	98	11

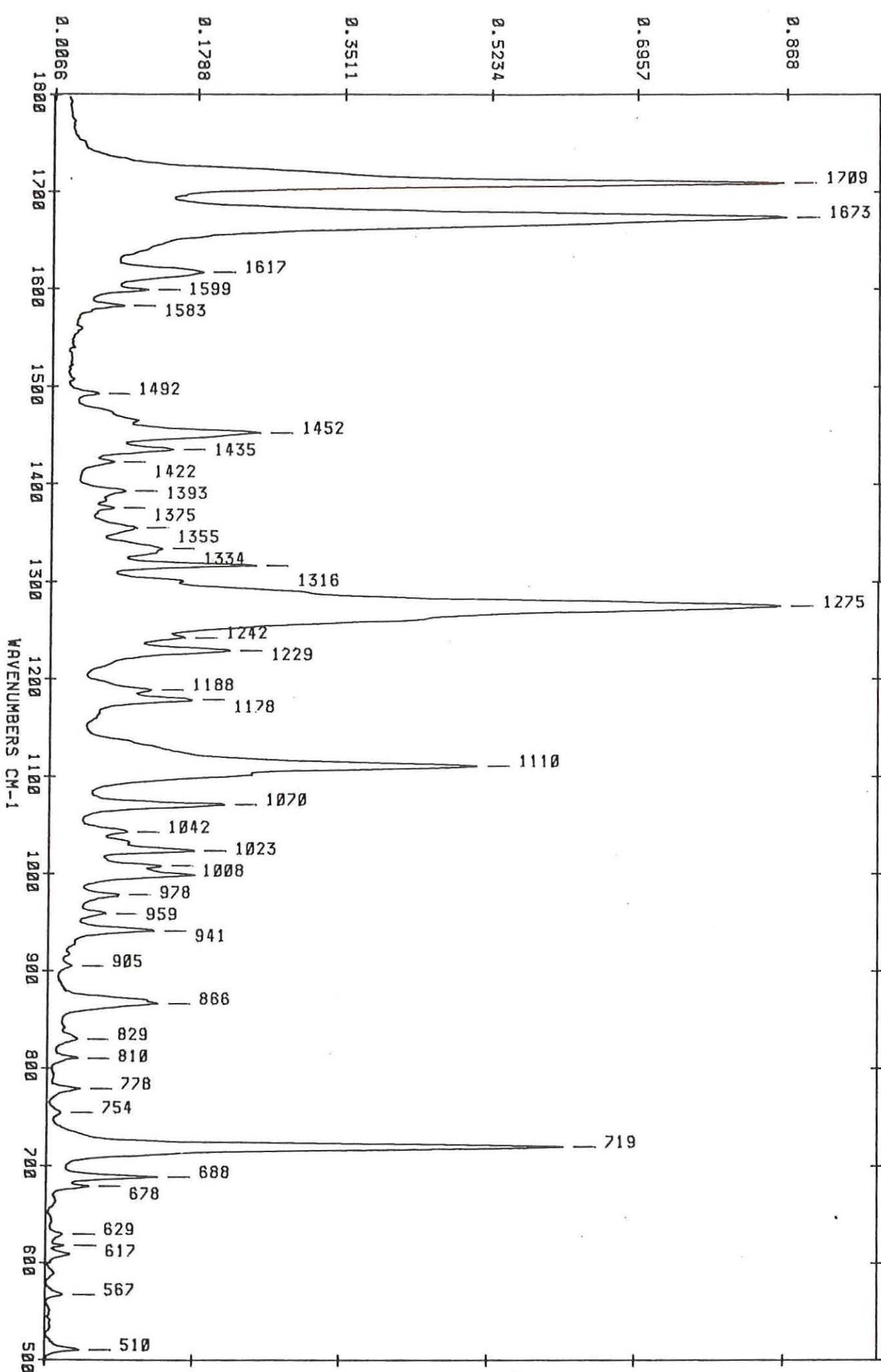




COMPOUND NAME: TESTOSTERONE-BENZOATE  
 SYSTEMATIC NAME: 4-ANDROSTEN-17 BETA-OL-3-ONE BENZOATE  
 CA NAME: ANDROST-4-EN-3-ONE, 17-(BENZOYLOXY)- (17 BETA)  
 CAS NUMBER: 2088-71-3  
 STERALIDS NUMBER: A 6954  
 MOLECULAR FORMULE: C26H32O3  
 MOLECULAR WEIGHT: 392.5  
 MELTING POINT: 188-192  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: T-1750  
 CHARGE NUMBER: 62F-0602  
 FLS: HOR42033

ORIG. PEAK TABLE: HOR42033.PEAK=D2--->ADEO. PEAK TABLE: HOR42033.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 17 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	687.577	16	7
2	719.401	71	7
3	865.983	16	14
4	941.203	15	8
5	998.100	21	8
6	1023.174	21	9
7	1070.427	25	9
8	1109.966	59	11
9	1178.435	20	9
10	1228.582	25	11
11	1274.871	99	20
12	1316.338	29	7
13	1434.954	17	12
14	1452.313	29	14
15	1617.218	21	18
16	1673.151	100	17
17	1708.832	100	11



COMPOUND NAME: 17 ALPHA-METHYLTESTOSTERONE

SYSTEMATIC NAME: 17-HYDROXY-17-METHYLANDROST-4-EN-3 ONE

17 ALPHA-METHYL-4-ANDROSTEN-17 BETA-OL-3-ONE

CA NAME: ANDROST-4-EN-3-ONE, 17 HYDROXY-17-METHYL-(17 BETA)

CAS NUMBER: 58-18-4

MERCK INDEX NO (10 ED): 6000

STERALIDS NUMBER: A 6280

MOLECULAR FORMULE: C20H30O2

MOLECULAR WEIGHT: 302.4

MELTING POINT: 161-166

SAMPLE TECHNIQUE: MACRO-KBR

SAMPLE QUANTITY: 1 MG / 100 MG KBR

MANUFACTURER: SIGMA

MANUFACTURER REFERENCE: M 7252

CHARGE NUMBER: 11F-0439

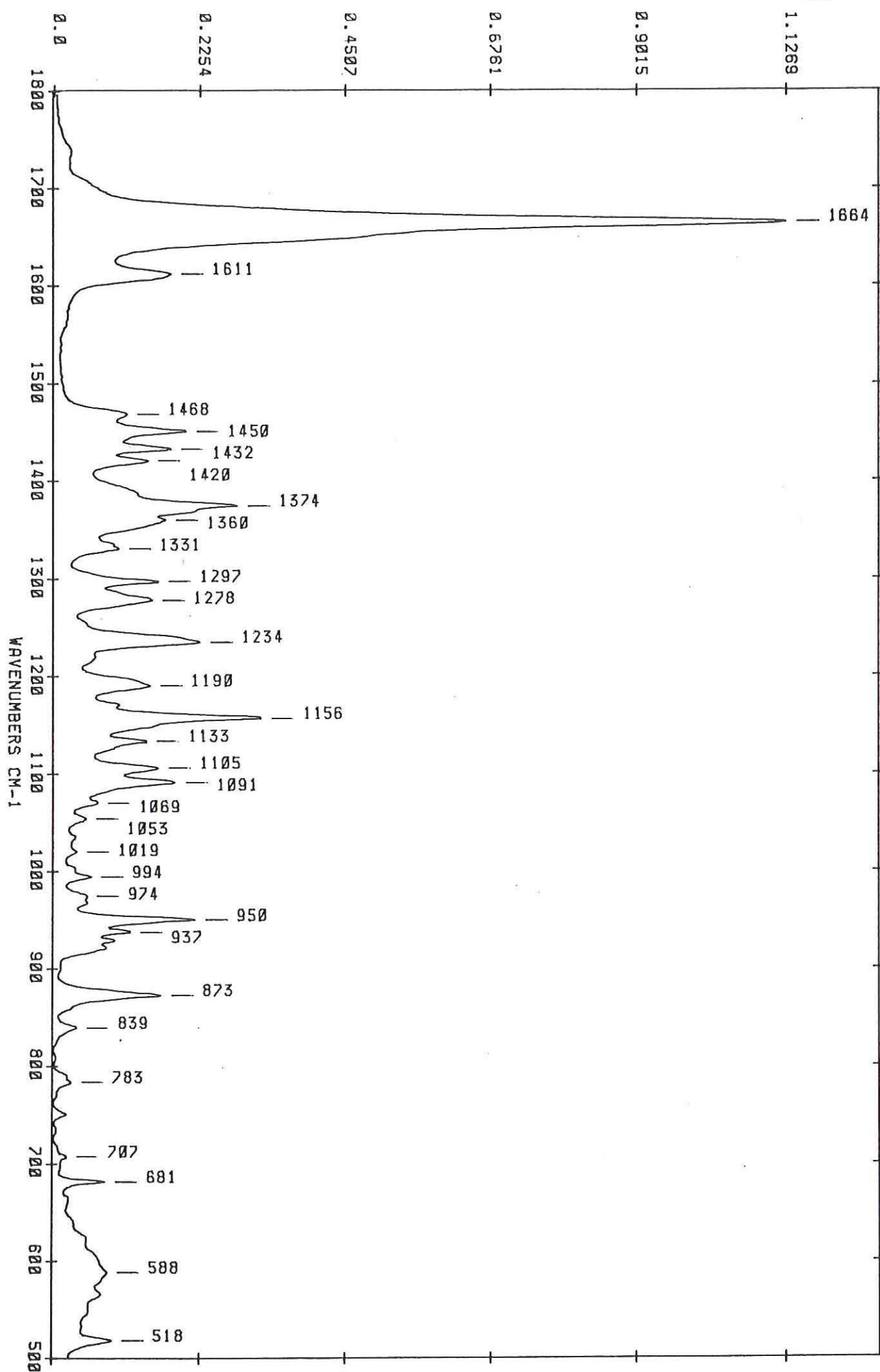
FLS: HOR42022

ORIG. PEAK TABLE: HOR42022.PEAK=D2---&gt;ADEQ. PEAK TABLE: HOR42022.APKL

SENSITIVITY ORIGINAL PEAK TABLE : 90

12 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	872.733	15	10
2	949.882	19	9
3	1090.678	17	14
4	1156.254	28	11
5	1190.006	13	19
6	1234.367	20	15
7	1277.763	14	17
8	1297.050	14	10
9	1374.198	25	14
10	1450.382	18	11
11	1611.430	16	18
12	1663.505	100	17



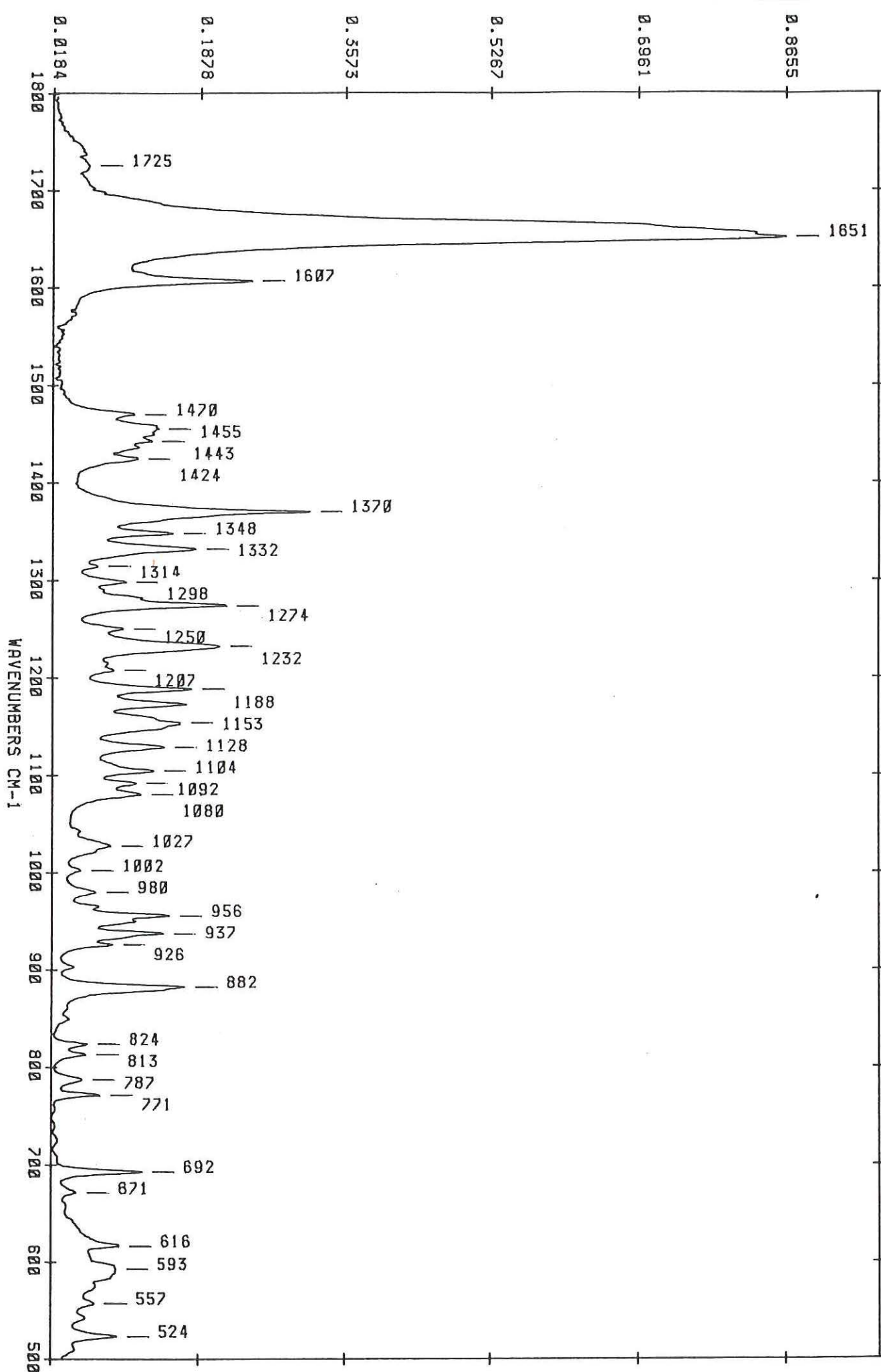
COMPOUND NAME:  $\Delta^9(11)$ -METHYLTESTOSTERONE  
 SYSTEMATIC NAME: 17 BETA-HYDROXY-17 ALPHA-METHYLANDROSTA-4,9(11)-DIEN-3-ONE  
 CA NAME: -  
 CAS NUMBER: -  
 MERCK INDEX NO (10 ED): -  
 STERALIDS NUMBER: A 510  
 MOLECULAR FORMULE: C<sub>20</sub>H<sub>28</sub>O<sub>2</sub>  
 MOLECULAR WEIGHT: 300.4  
 MELTING POINT: 171-173  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 NG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: M-7377  
 CHARGE NUMBER: 36C-0312  
 FLS: HOR42049

ORIG. PEAK TABLE: HOR42049.PEAK=D2--->ADEQ. PEAK TABLE: HOR42049.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

16 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	692.399	14	7
2	882.377	20	10
3	937.345	17	10
4	955.668	18	14
5	1104.179	16	11
6	1128.288	17	14
7	1153.361	19	23
8	1172.648	20	10
9	1188.078	21	9
10	1232.438	24	14
11	1273.905	25	9
12	1331.767	21	11
13	1348.161	18	11
14	1370.341	36	9
15	1606.608	29	10
16	1650.969	100	27



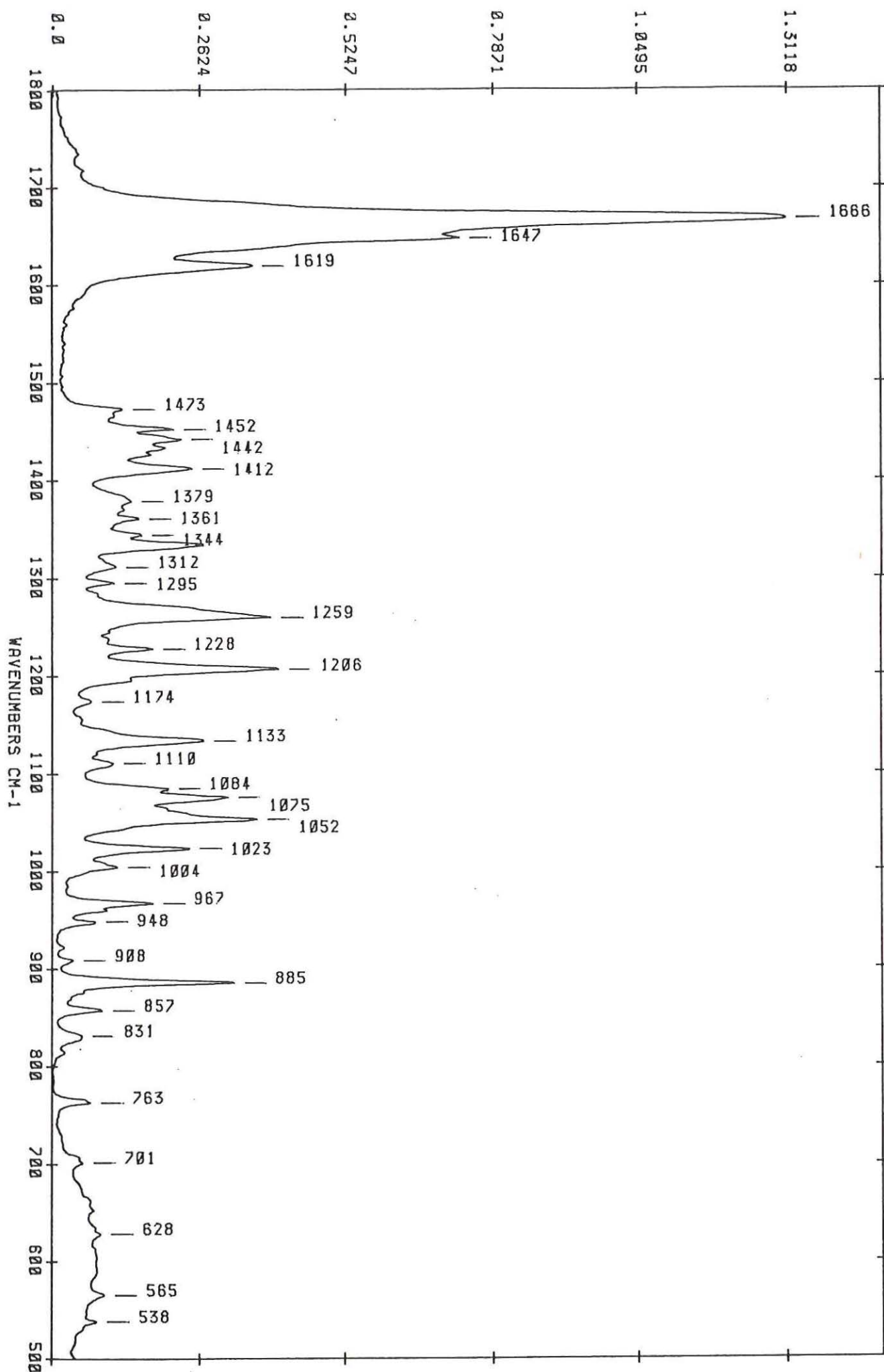


COMPOUND NAME: 17 BETA-19-NORTESTOSTERONE, NANDROLONE  
 SYSTEMATIC NAME: 17 BETA-HYDROXY-4-ESTREN-3-ONE  
 CA NAME: ESTRA-4-EN-3-ONE, 17-HYDROXY-(17) BETA)  
 CAS NUMBER: 434-22-0  
 MERCK INDEX NO (10 ED): 6211  
 STERALIDS NUMBER: E 4050  
 MOLECULAR FORMULE: C18H26O2  
 MOLECULAR WEIGHT: 274.4  
 MELTING POINT: 112 AND 124  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: N-7252  
 CHARGE NUMBER: 119C-0234  
 FLS: HOR42021

ORIG. PEAK TABLE: HOR42021.PEAK=D2---->ADEQ. PEAK TABLE: HOR42021.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

13 PEAKS.

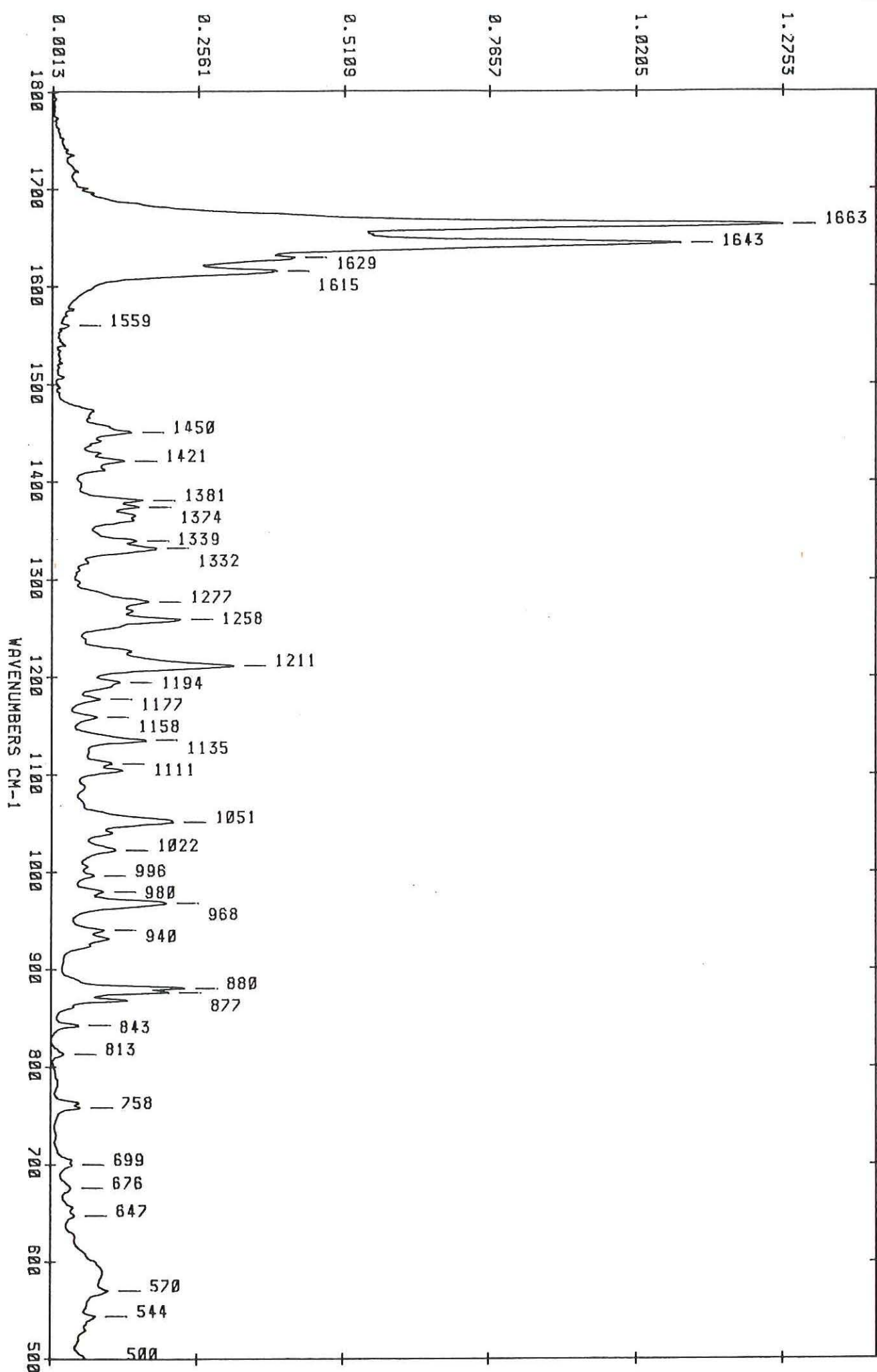
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	885.270	25	7
2	967.240	14	8
3	1023.173	19	9
4	1052.103	28	12
5	1075.248	24	21
6	1133.109	21	12
7	1206.400	31	11
8	1227.616	14	10
9	1259.440	30	17
10	1334.660	21	13
11	1411.808	19	13
12	1619.145	27	18
13	1666.398	100	19



COMPOUND NAME: 17 ALPHA 19-NORTESTOSTERONE, EPI-NORTESTOSTERONE  
SYSTEMATIC NAME: 17 ALPHA-HYDROXY-ESTR-4-EN-3-ONE  
CA NAME: ESTR-4-EN-3-ONE, 17-HYDROXY-(17 ALPHA)  
CAS NUMBER: 4409-34-1  
MOLECULAR FORMULE: C18H26O2  
MOLECULAR WEIGHT: 274.4  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
MANUFACTURER REFERENCE: ORGANON  
FLS: HOR42100

ORIG. PEAK TABLE: HOR42100.PEAK=D2--->ADEQ. PEAK TABLE: HOR42100.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90  
9 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	880.454	18	6
2	968.210	16	12
3	1051.145	17	12
4	1135.044	13	9
5	1211.228	25	13
6	1258.481	18	10
7	1615.293	31	12
8	1643.259	86	14
9	1662.546	100	11

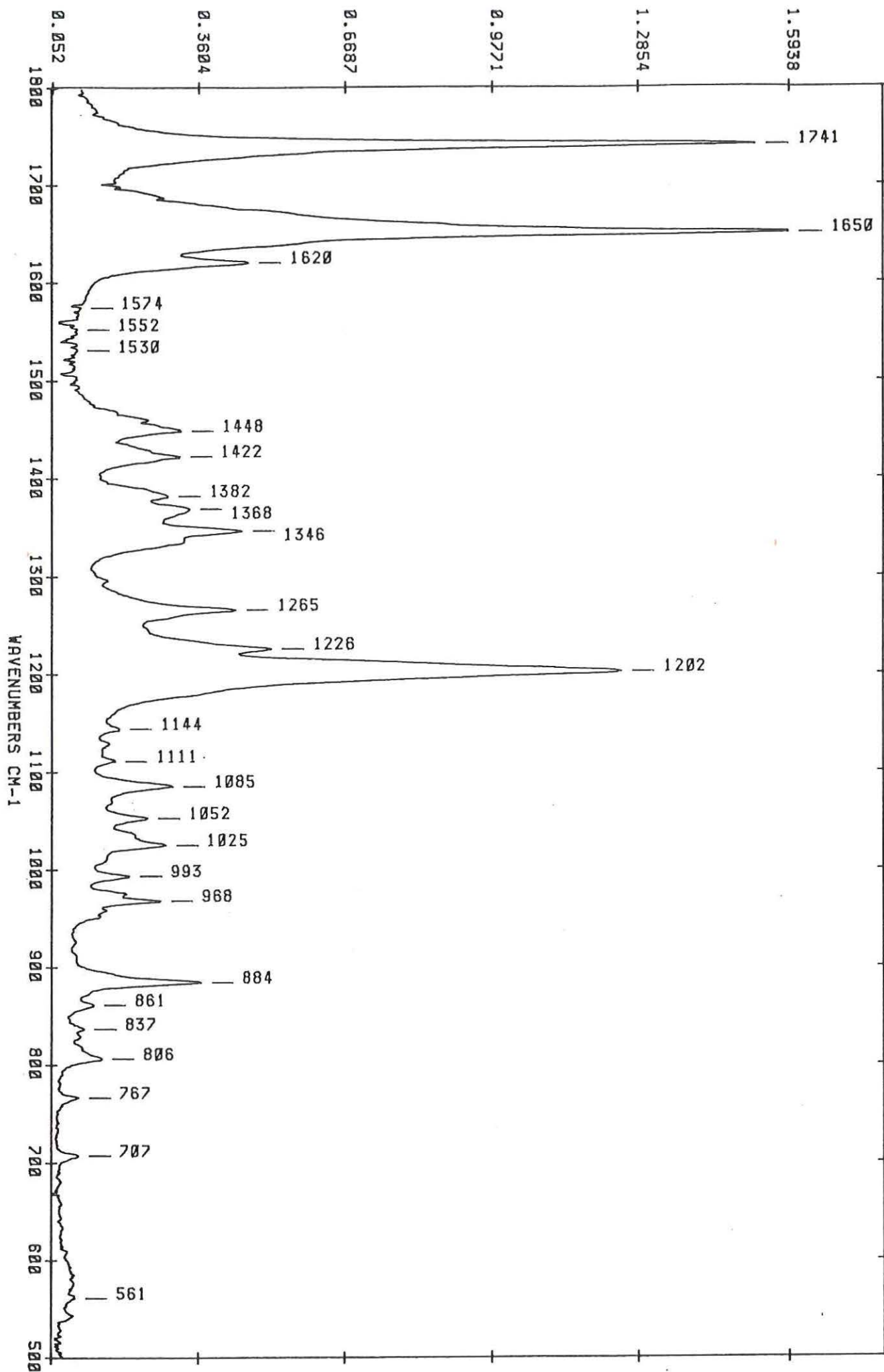




COMPOUND NAME: 17 BETA-19-NORTESTOSTERONE PROPIONATE, NANDROLONE PROPIONATE  
 SYSTEMATIC NAME: 17 BETA-HYDROXYESTR-4-EN-3-ONE PROPIONATE  
 CA NAME: ESTR -4-EN-3-ONE, 17-(1-OXOPROPOXY)-(17 BETA)  
 CAS NUMBER: 7207-92-3  
 MERCK INDEX NO (10<sup>ED</sup>): 6215  
 STERALIDS NUMBER: E 4090  
 MOLECULAR FORMULE: C<sub>21</sub>H<sub>30</sub>O<sub>3</sub>  
 MOLECULAR WEIGHT: 330.45  
 MELTING POINT: 55-60  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SERVA  
 MANUFACTURER REFERENCE: 30955  
 FLS: HOR42053

ORIG. PEAK TABLE: HOR42053.PEAK=D2--->ADER. PEAK TABLE: HOR42053.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 13 PEAKS.

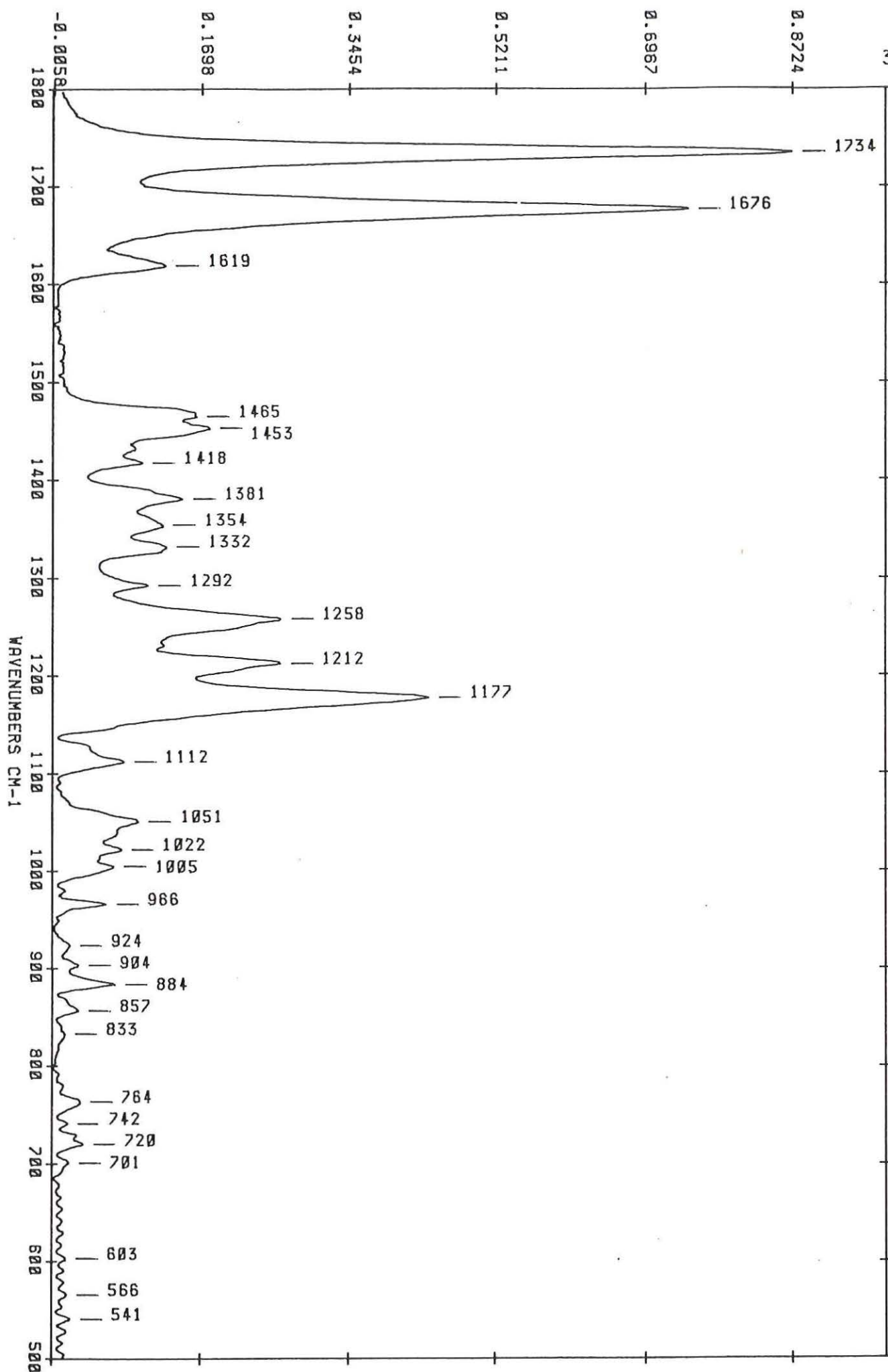
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	884.311	23	11
2	968.210	18	11
3	1025.107	18	19
4	1052.109	16	16
5	1084.897	19	15
6	1201.584	78	23
7	1265.232	28	15
8	1346.238	28	26
9	1422.422	20	23
10	1448.459	20	25
11	1620.115	29	17
12	1650.010	100	14
13	1740.659	96	10



COMPOUND NAME: 17 BETA-17-NORTESTOSTERONE DECANOATE, NANDROLONE DECANOATE  
 SYSTEMATIC NAME: 17 BETA-((1-OXODECYL)-OXY) -ESTR -4-EN-3-ONE  
 CA NAME: ESTR-4-EN-3-ONE, 17-((1-OXODECYL)OXY)-, (17 BETA)  
 CAS NUMBER: 360-70-3  
 MERCK INDEX NO (10 ED): 6212  
 MOLECULAR FORMULE: C28H44O3  
 MOLECULAR WEIGHT: 428.6  
 MELTING POINT: 32-35  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: DECA-DURABOLIN, DECA-DURABOL, DECA-HYBOLIN, HYBOLIN DECANOATE  
 MANUFACTURER: ORGANON  
 MANUFACTURER REFERENCE: NORDEC 196  
 CHARGE NUMBER: 56863  
 FLS: HOR42039

ORIG. PEAK TABLE: HOR42039.PEAK=D2--->ADEQ. PEAK TABLE: HOR42039.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 10 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	1177.475	51	24
2	1212.192	30	24
3	1257.517	30	28
4	1331.772	15	26
5	1380.955	17	29
6	1453.281	21	30
7	1464.853	19	22
8	1619.150	15	15
9	1676.047	86	20
10	1733.909	100	16

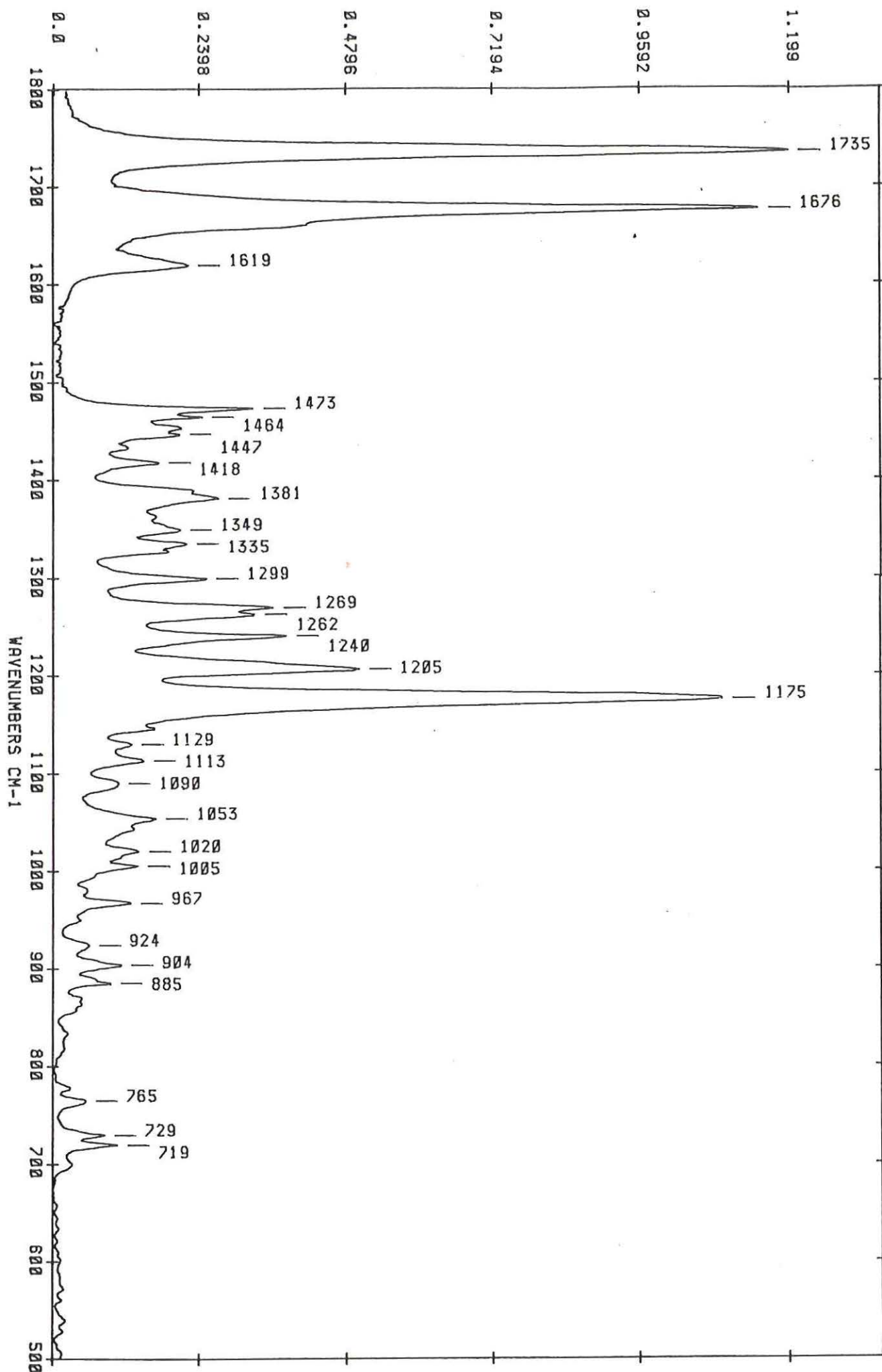


COMPOUND NAME: 17 BETA-19-NORTESTOSTERONE LAURATE, NANDROLONE LAURATE 31  
 SYSTEMATICNAME: 17 BETA-HYDROXYESTR-4-EN-3 ONE 17-DECANOATE  
 MOLECULAR FORMULE: C30H48O3  
 MOLECULAR WEIGHT: 456  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: ?  
 MANUFACTURER REFERENCE: CHARGE 48  
 CHARGE NUMBER: 010483  
 FLS: HOR42034

ORIG. PEAK TABLE: HOR42034.PEAK=D2--->ADEQ. PEAK TABLE: HOR42034.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	1053.073	14	27
2	1174.582	91	17
3	1205.442	42	18
4	1240.159	32	11
5	1269.089	30	22
6	1298.984	21	11
7	1334.665	18	20
8	1380.955	23	21
9	1417.600	14	11
10	1472.568	27	6
11	1619.150	19	20
12	1676.047	96	14
13	1734.873	100	14





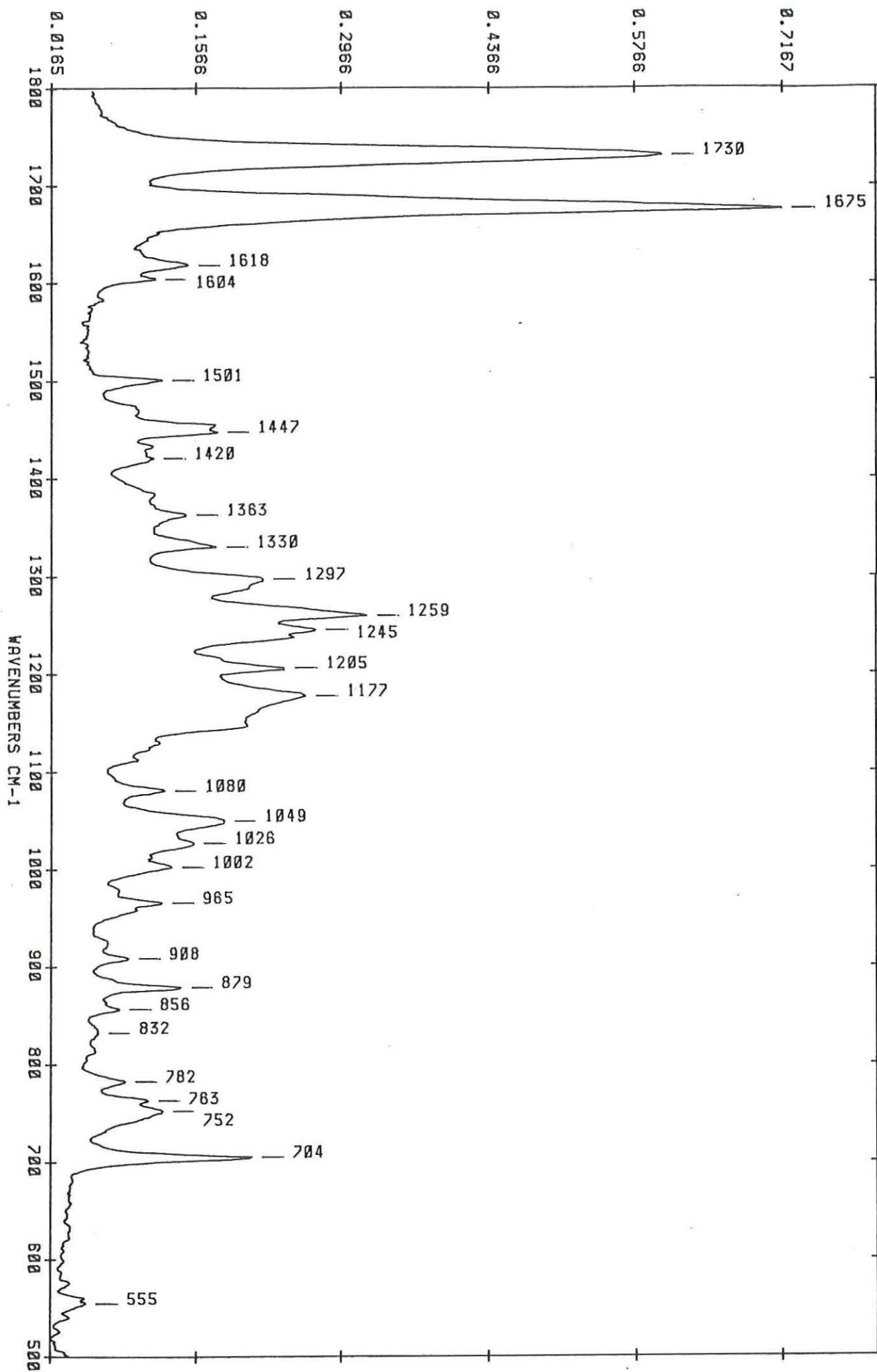
FLS-HOR42034

COMPOUND NAME: 17 BETA-19-NORTESTOSTERONE PHENPROPIONATE,  
SYSTEMATIC NAME: 17 BETA-HYDROXYESTR-4-EN-3-ONE 3 PHENYL-PROPIONATE  
CA NAME: ESTR-4-EN-3-ONE, -(1-OXO-3-PHENYLPROPOXY)-, (17 BETA)  
CAS NUMBER: 62-90-8  
MERCK INDEX NO (10 ED): 6214  
STERALIDS NUMBER: -  
MOLECULAR FORMULE: C27H34O3  
MOLECULAR WEIGHT: 406.54  
MELTING POINT: 95-96  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
COMMERCIAL NAME: DURABOLIN, DURABOL, NANDROLIN  
MANUFACTURER: ORGANON  
MANUFACTURER REFERENCE: 56862  
CHARGE NUMBER: NOR TPP Z 239  
FLS: HOR42040

ADEQ. PEAK TABLE: HOR42040.APKL

SENSITIVITY ORIGINAL PEAK TABLE : 90  
16 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	703.977	29	10
2	752.194	17	43
3	878.525	20	12
4	965.317	17	25
5	1049.216	26	25
6	1080.075	18	17
7	1177.475	37	93
8	1205.442	34	21
9	1259.446	45	23
10	1297.056	31	23
11	1329.844	25	23
12	1447.495	25	22
13	1500.535	17	13
14	1618.186	21	20
15	1675.083	100	17
16	1730.051	84	22

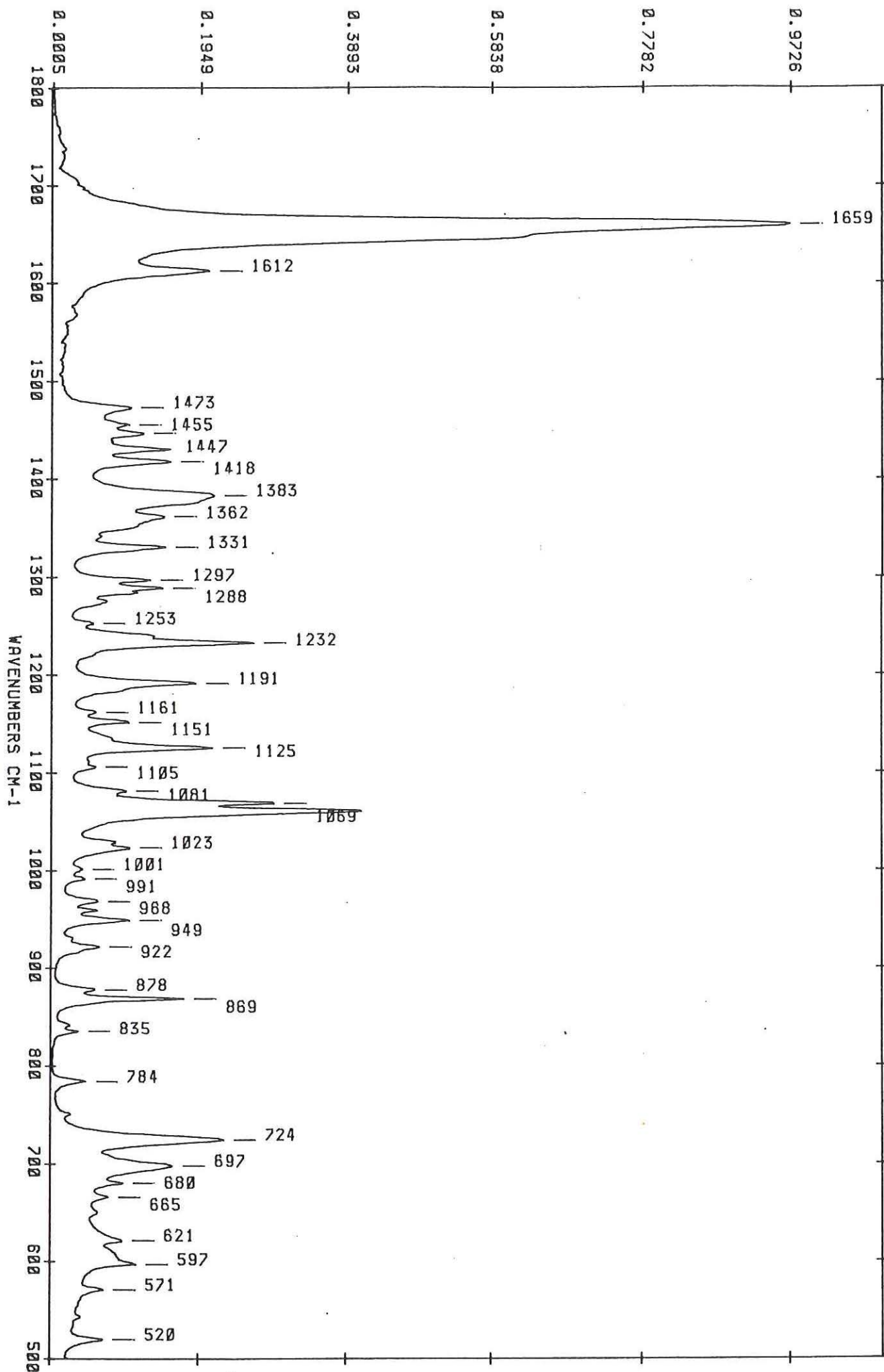


FLS-HOR42040

COMPOUND NAME: ETHISTERONE, ETHYNYLTESTOSTERONE  
 SYSTEMATIC NAME: 17 ALPHA-HYDROXYPREGN-4-EN-20-YN-3-ONE  
 CA NAME: PREGN-4-EN-20-YN-3-ONE, 17-HYDROXY, (17 ALPHA)  
 CAS NUMBER: 434-03-7  
 MERCK INDEX NO (10 ED): 3689  
 STERALIDS NUMBER: A 6100  
 MOLECULAR FORMULE: C<sub>21</sub>H<sub>28</sub>O<sub>2</sub>  
 MOLECULAR WEIGHT: 312.4  
 MELTING POINT: 269-275  
 SAMPLE TECHNIQUE: MICRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: PROGESTORAL, FRANDONE, GESTORAL  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: E-1001  
 CHARGE NUMBER: 92F-0630  
 FLS: HOR42032

ORIG. PEAK TABLE: HOR42032.PEAK=D2--->ADEQ. PEAK TABLE: HOR42032.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 15 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	697.220	17	17
2	724.222	23	13
3	868.876	18	5
4	1059.818	42	9
5	1068.497	30	8
6	1125.394	22	9
7	1190.971	20	10
8	1232.438	27	8
9	1288.371	15	13
10	1330.802	15	9
11	1382.878	22	23
12	1417.594	16	10
13	1430.131	16	6
14	1612.394	21	16
15	1658.683	100	25



FLS-HOR42032

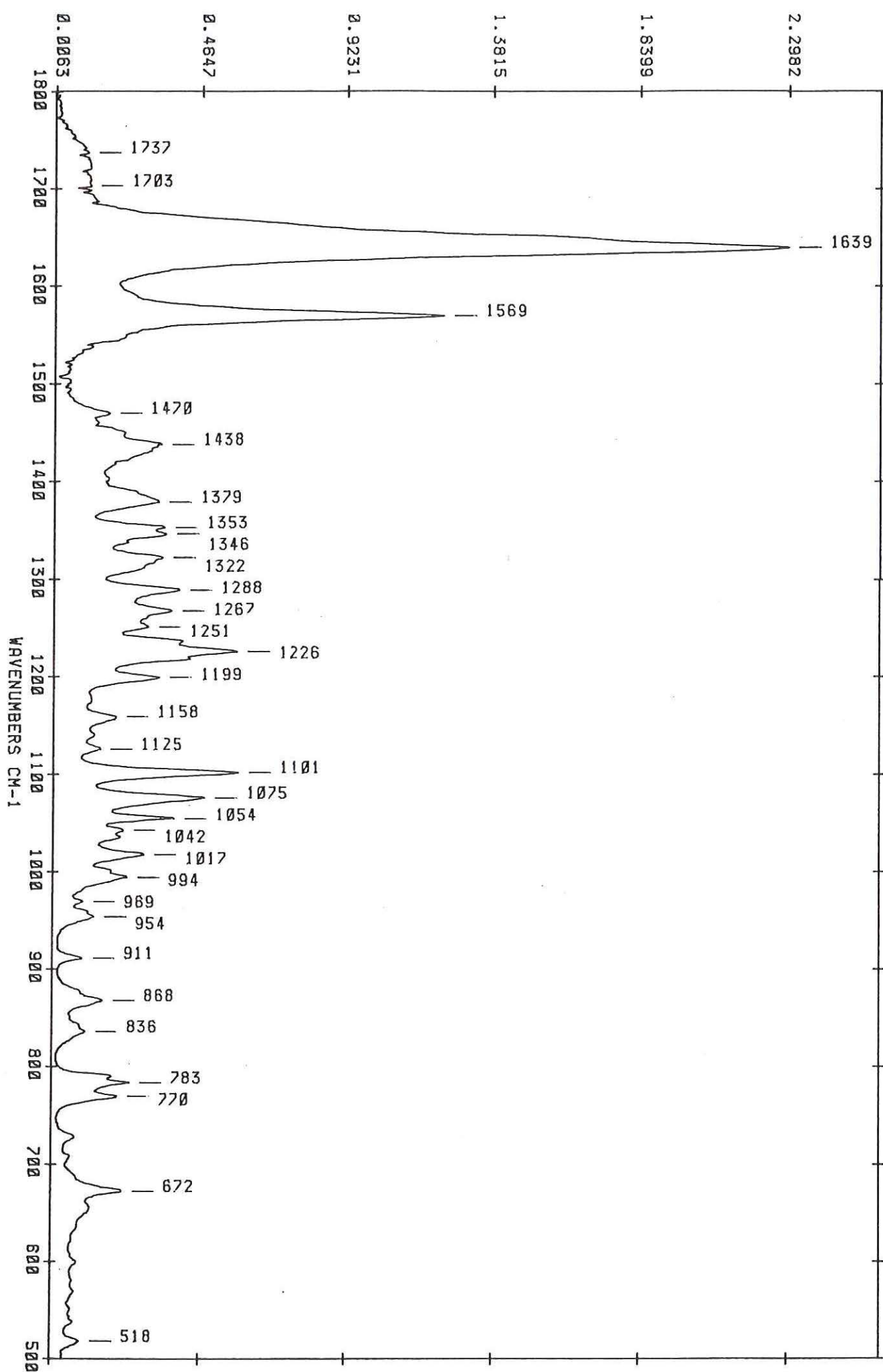


COMPOUND NAME: 17 BETA-TRENBOLONE  
 SYSTEMATIC NAME: 17 BETA-HYDROXYESTRA-4,9,11-TRIEN-3-ONE  
 CA NAME: ESTRA-4,9,11-TRIEN-3 ONE, 17-HYDROXY-, (17 BETA)  
 CAS NUMBER: 10161-33-8  
 MERCK INDEX NO (10 ED): 9402  
 STERALIDS NUMBER: -  
 MOLECULAR FORMULE: C18H22O2  
 MOLECULAR WEIGHT: 270.38  
 MELTING POINT: 186  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: TRIENBOLONE, TRIENOLONE  
 MANUFACTURER: ROUSSEL UCLAF  
 MANUFACTURER REFERENCE: 3E 0657  
 CHARGE NUMBER: -  
 FLS: HOR42023

ADEQ. PEAK TABLE: HOR42023.APKL

SENSITIVITY ORIGINAL PEAK TABLE : 90  
15 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	1017.392	13	13
2	1054.038	17	8
3	1075.254	21	12
4	1101.291	25	11
5	1198.691	15	14
6	1225.693	25	23
7	1267.160	16	42
8	1288.376	17	11
9	1322.129	15	30
10	1346.238	16	23
11	1352.988	15	12
12	1379.026	14	27
13	1437.852	15	29
14	1569.004	53	14
15	1639.402	100	27

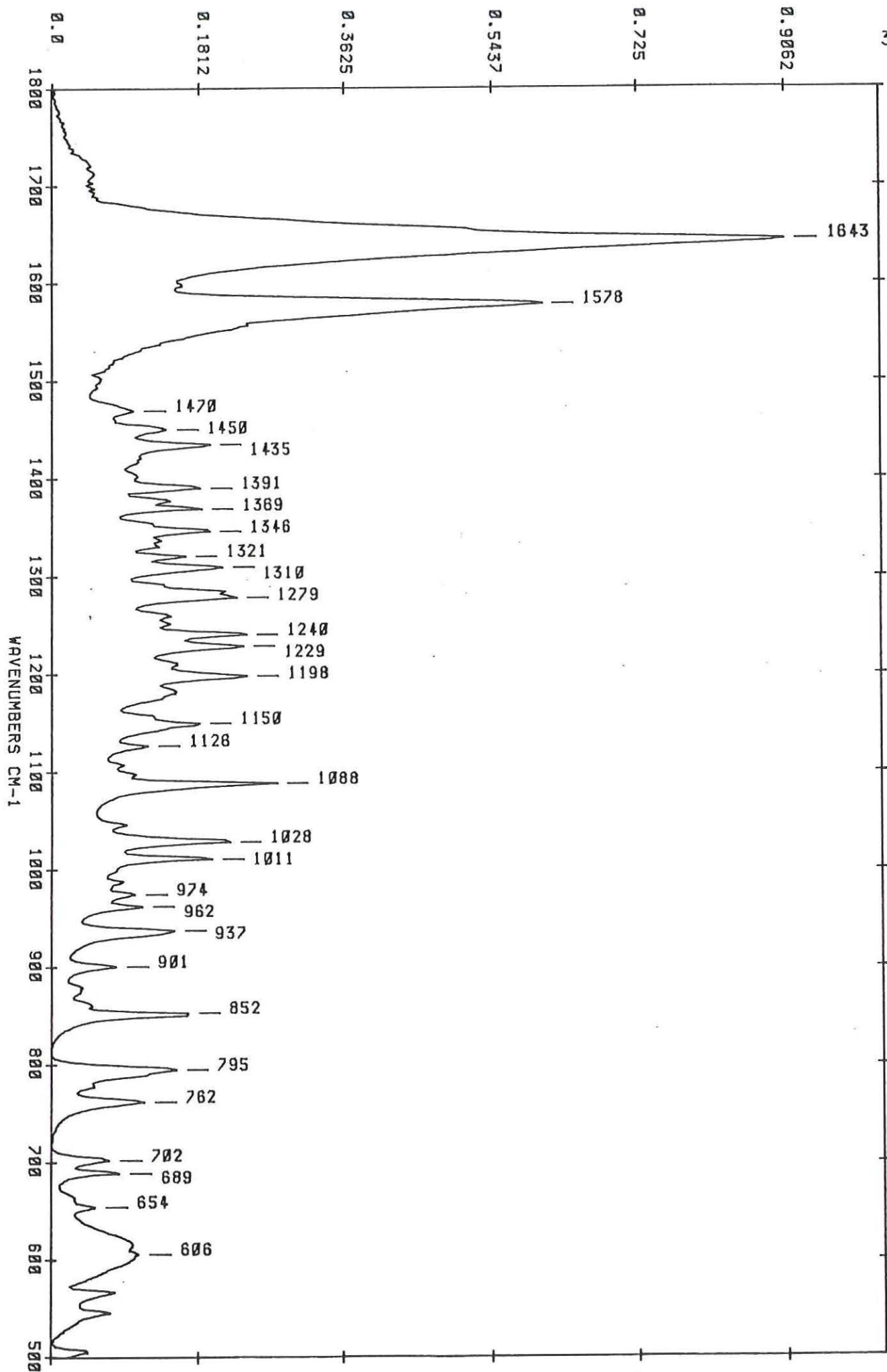


FLS-HOR42023

COMPOUND NAME: TRENBOLONE 17 ALPHA  
 SYSTEMATIC NAME: 17 ALPHA-HYDROXYESTRA-4,9,11-TRIEN-3-ONE  
 CA NAME: ESTRA-4,9,11-TRIEN-3 ONE, 17-HYDROXY-, (17 ALPHA)  
 CAS NUMBER: 80657-17-6  
 MOLECULAR FORMULE: C18H22O2  
 MOLECULAR WEIGHT: 270.4  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER:  
 FLS: HOR42024

ORIG. PEAK TABLE: HOR42024.PEAK=D2--->ADEQ. PEAK TABLE: HOR42024.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 22 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	761.832	13	12
2	794.620	17	14
3	852.482	19	8
4	937.345	17	12
5	1010.636	22	8
6	1027.995	24	10
7	1087.785	31	10
8	1126.359	13	12
9	1149.504	20	15
10	1197.721	27	14
11	1228.581	26	12
12	1240.153	27	10
13	1278.727	25	21
14	1309.587	23	14
15	1321.159	18	12
16	1346.232	22	10
17	1369.377	20	10
18	1390.593	20	12
19	1434.953	22	10
20	1450.383	16	17
21	1577.678	67	21
22	1643.254	100	29

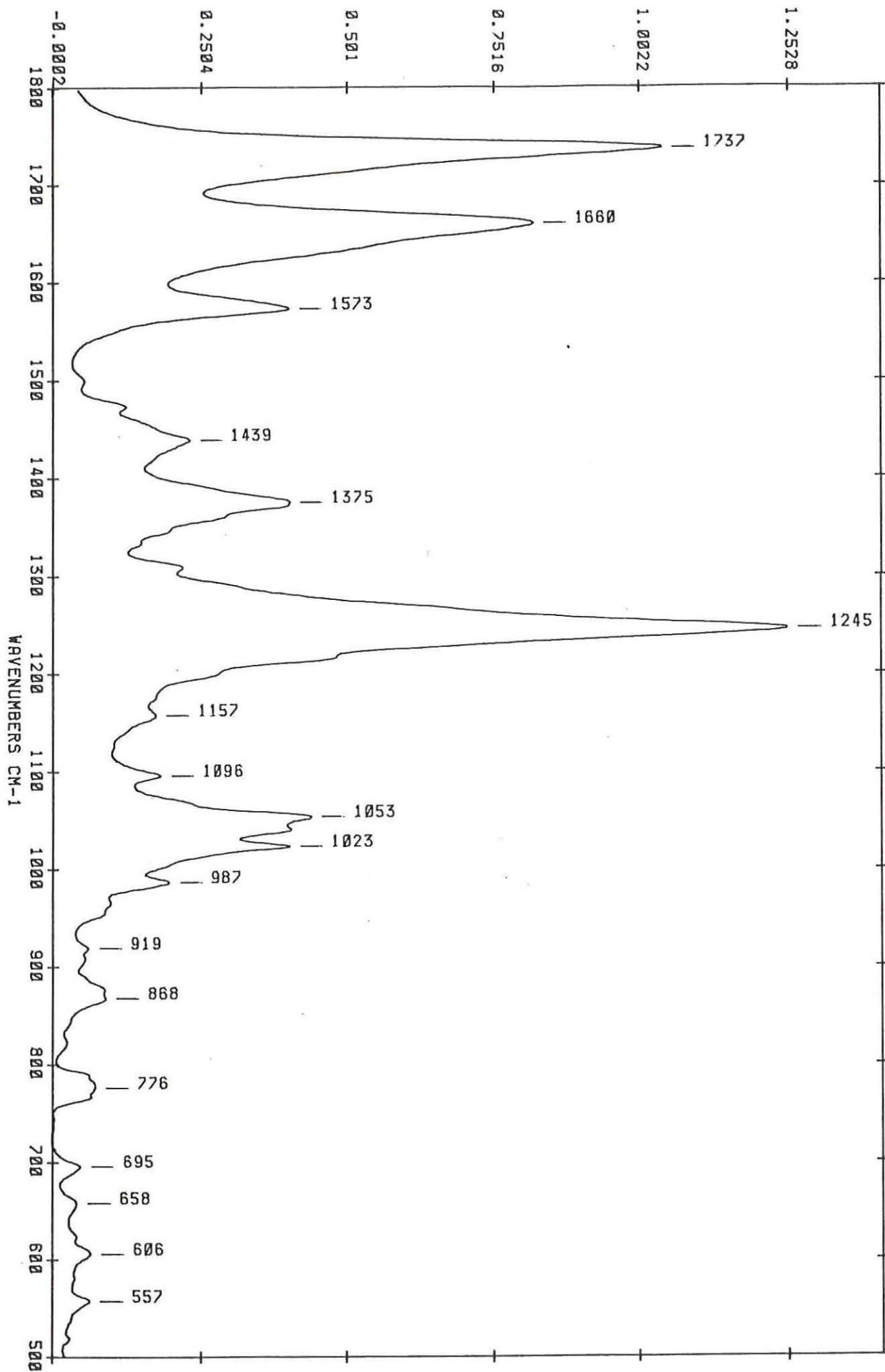


COMPOUND NAME: TRENBOLONE ACETATE  
SYSTEMATIC NAME: 17 BETA ACETOXY-3-OXOESTRA-4,9,11-TRIENE  
CA NAME: ESTRA-4,9,11-TRIEN-3-ONE,17-(ACETYLOXY)-  
CAS NUMBER: 10161-34-9  
MOLECULAR FORMULE: C20H24O3  
MOLECULAR WEIGHT: 312  
MELTING POINT: 96-97  
SAMPLE TECHNIQUE: MACRO-KBR  
SAMPLE QUANTITY: 1 MG / 100 MG KBR  
COMMERCIAL NAME: FINAPLIX  
MANUFACTURER:  
FLS: HOR42102  
MERCK INDEX NO (10 ED):9402

ORIG. PEAK TABLE: HOR42102.PEAK=D2--->ADEQ. PEAK TABLE: HOR42102.APKL  
SENSITIVITY ORIGINAL PEAK TABLE : 90  
10 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	986.533	16	23
2	1023.178	32	22
3	1053.073	35	21
4	1095.505	15	23
5	1244.980	100	41
6	1375.168	32	43
7	1438.816	18	50
8	1572.861	32	31
9	1659.653	66	48
10	1736.802	83	28



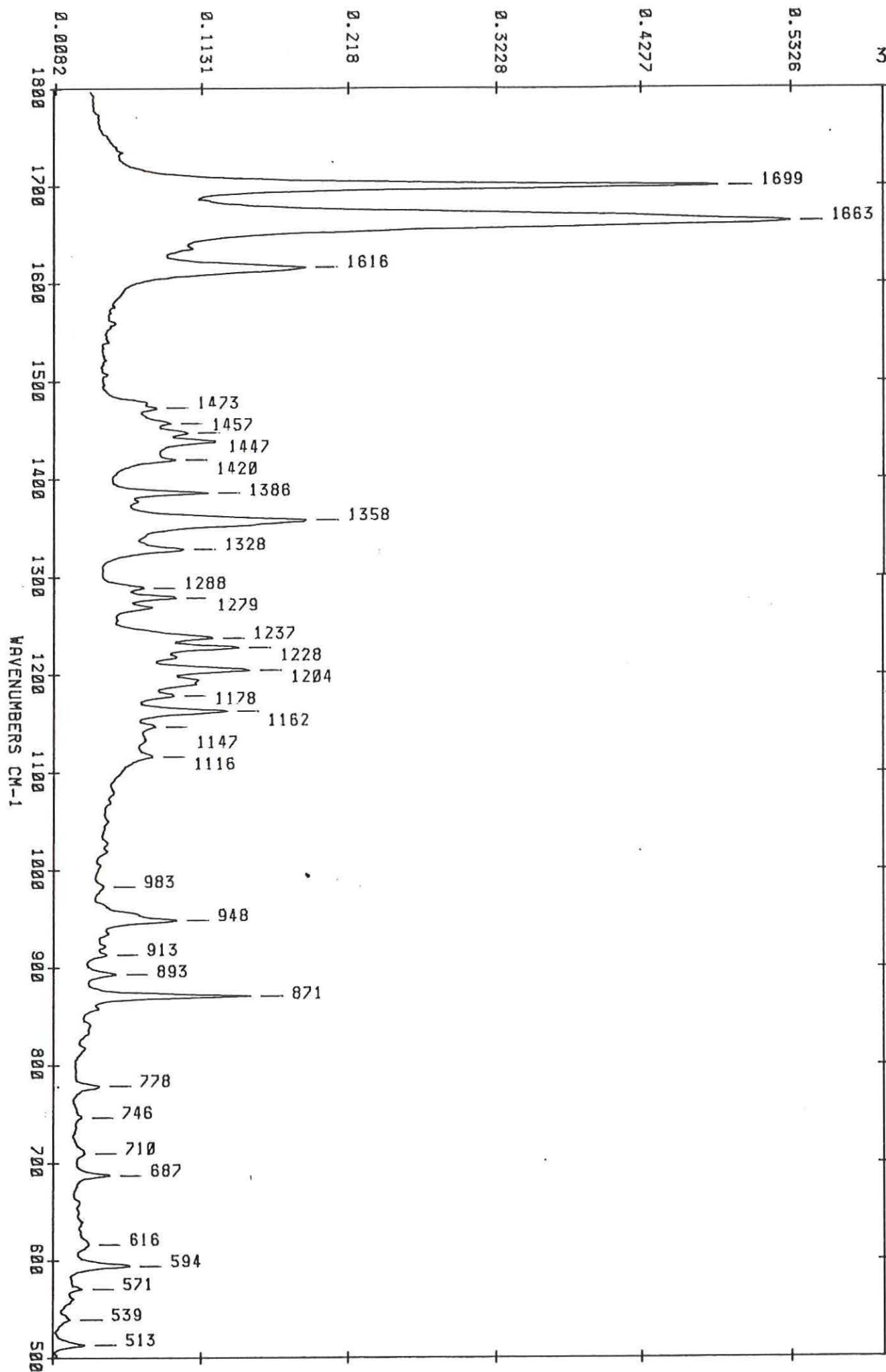


FLS-HOR42102

COMPOUND NAME: PROGESTERONE  
 SYSTEMATIC NAME: DELTA 4-PREGNENE-3,20-DIONE  
 CA NAME: PREGN-4-ENE-3,20-DIONE  
 CAS NUMBER: 57-83-0  
 MERCK INDEX NO (10 ED): 7678  
 STERALDIDS NUMBER: Q 2600  
 MOLECULAR FORMULE: C21H30O2  
 MOLECULAR WEIGHT: 314.5  
 MELTING POINT: 127-131  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: P-0130  
 CHARGE NUMBER: 13F-0838  
 FLS: HOR42017

ORIG. PEAK TABLE: HOR42017.PEAK=D2--->ADEQ. PEAK TABLE: HOR42017.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 14 PEAKS.

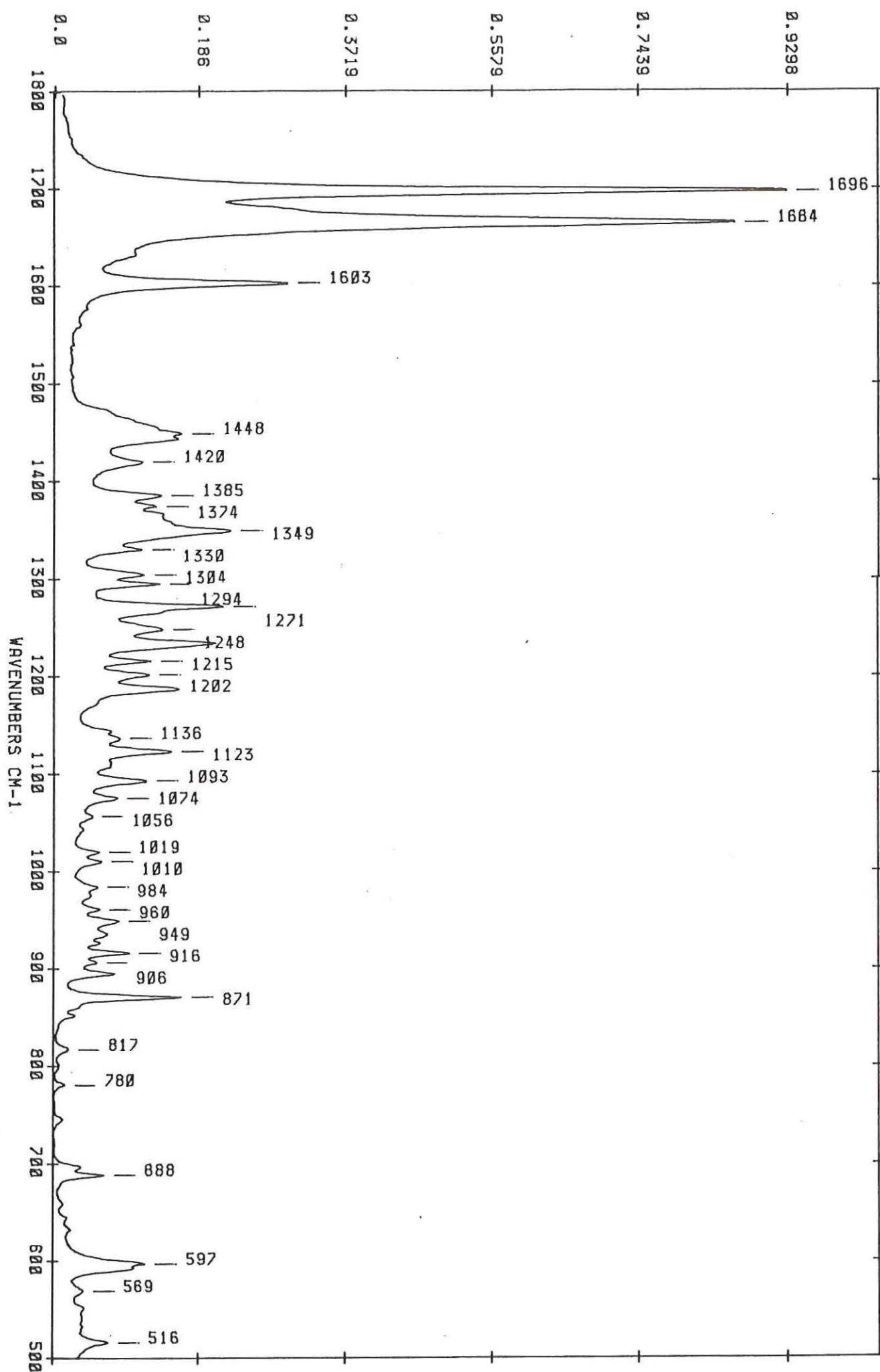
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	870.805	28	4
2	947.954	18	16
3	1162.041	25	10
4	1204.473	28	11
5	1227.618	26	11
6	1237.261	23	17
7	1278.728	18	11
8	1327.911	19	13
9	1357.806	35	13
10	1385.772	22	7
11	1438.812	23	14
12	1616.254	35	15
13	1662.543	100	19
14	1699.188	91	9



COMPOUND NAME: MEDROXYPROGESTERONE  
 SYSTEMATIC NAME: 17-HYDROXY-6-METHYL-PREGN-4-ENE-3,20-DIONE  
 CA NAME: PREGN-4-ENE-3,20-DIONE,17 HYDROXY-6-METHYL-, (6 ALPHA)  
 CAS NUMBER: 520-85-4  
 MERCK INDEX NO (10 ED): 5614  
 STERALIDS NUMBER: Q 3020  
 MOLECULAR FORMULE: C22H32O3  
 MOLECULAR WEIGHT: 344.5  
 MELTING POINT: 220-223.5  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: N-6013  
 CHARGE NUMBER: 63F-7810  
 FLS: HOR42018

ORIG. PEAK TABLE: HOR42018.PEAK=D2---->ADEQ. PEAK TABLE: HOR42018.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 12 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	596.928	13	10
2	870.805	18	6
3	1092.607	13	11
4	1122.503	16	11
5	1186.150	17	13
6	1233.404	23	12
7	1271.014	23	11
8	1349.127	24	15
9	1448.455	18	33
10	1602.753	32	10
11	1663.507	93	14
12	1696.295	100	9



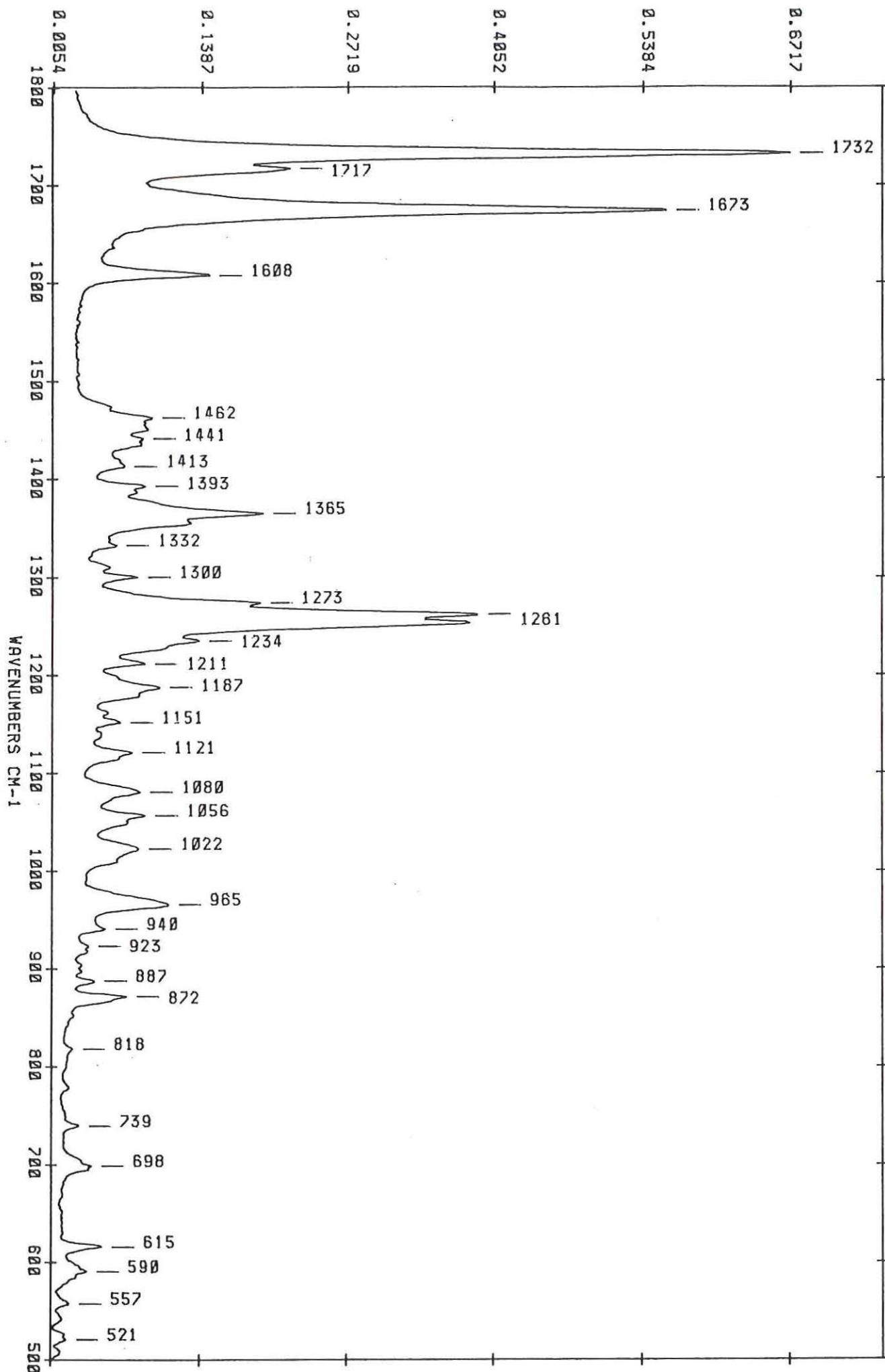


COMPOUND NAME: MEDROXYPROGESTERONE-ACETATE  
 SYSTEMATIC NAME: 17 ALPHA-ACETOXY-6 ALPHA-METHYLPROGESTERONE  
 CA NAME: PREGN-4-ENE-3,20-DIONE,17(ACETYLOXY)-6-METHYL-6ALPHA  
 CAS NUMBER: 71-58-9  
 MERCK INDEX NO (10 ED): 5614  
 STERALIDS NUMBER: Q 3021  
 MOLECULAR FORMULE: C24H34O4  
 MOLECULAR WEIGHT: 386.5  
 MELTING POINT: 207-209  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: CURRETAB, DEPORONE, FARLUTAL, GESTAPURAN, LUTORAL, NIDAXIN  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: H-1629  
 CHARGE NUMBER: 102F-0287  
 FLS: HOR42019

ORIG. PEAK TABLE: HOR42019.PEAK=D2--->ADEQ. PEAK TABLE: HOR42019.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

11 PEAKS.

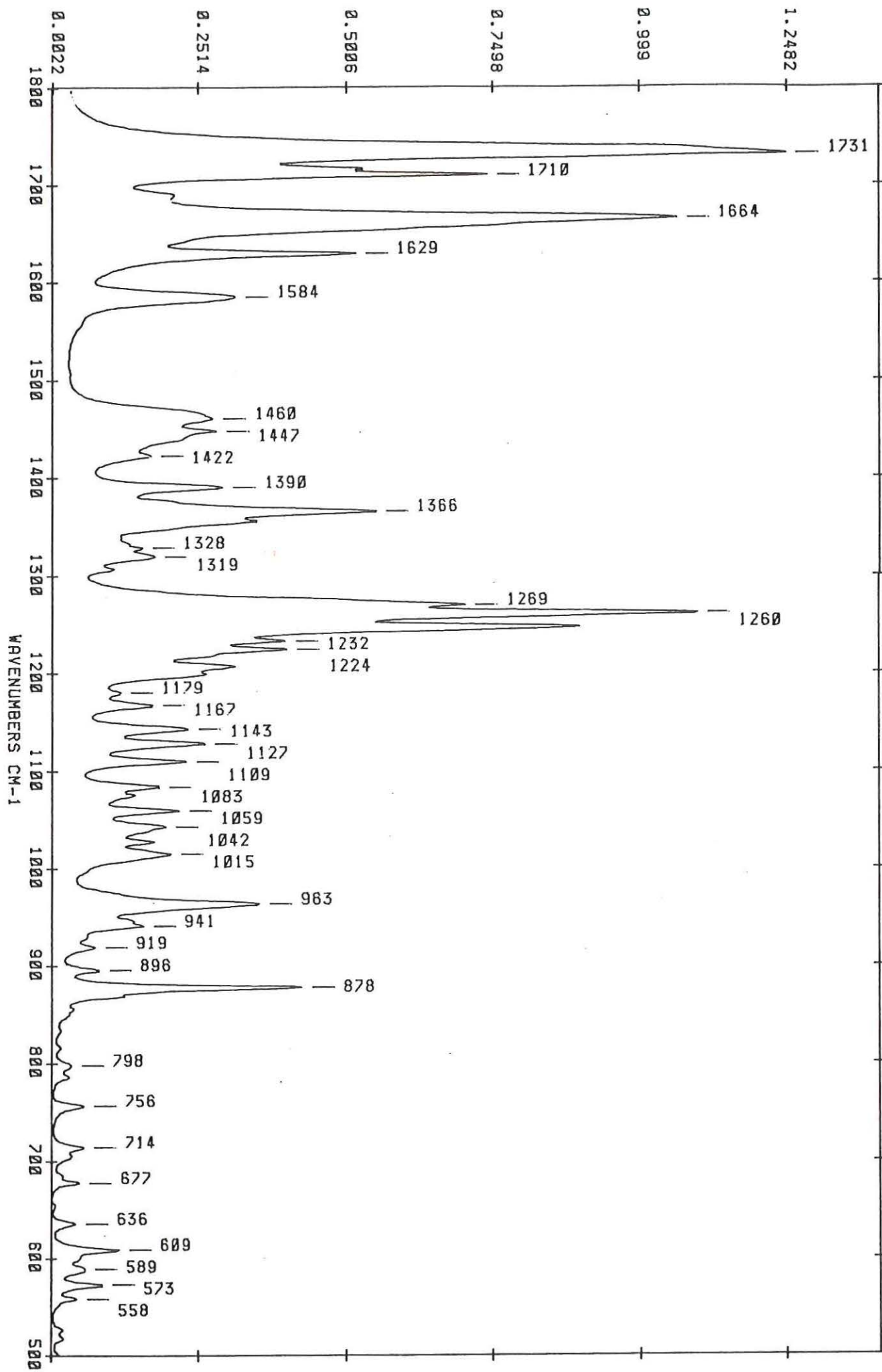
NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	965.312	16	19
2	1055.962	13	21
3	1080.071	13	17
4	1187.115	15	26
5	1252.691	57	13
6	1261.370	58	14
7	1364.556	29	21
8	1607.574	22	12
9	1673.151	83	14
10	1716.547	33	17
11	1731.977	100	12



COMPOUND NAME: MEGESTROL ACETATE  
 SYSTEMATIC NAME: 17-HYDROXY-6-METHYLPREGNA-4,6-DIENE-3,20-DIONE ACETATE  
 CA NAME: PREGNA-4,6-DIENE-3,20-DIONE,17-(ACETOXY)-6-METHYL  
 CAS NUMBER: 595-33-5  
 MERCK INDEX NO (10 ED): 5623  
 MOLECULAR FORMULA: C<sub>24</sub>H<sub>32</sub>O<sub>4</sub>  
 MOLECULAR WEIGHT: 384.5  
 MELTING POINT: 214-216  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: MEGACE,MEGESTAT,NIAGESTIN,OVABAN  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: N-0513  
 CHARGE NUMBER: 21F-0136  
 FLS: HOR42030

ORIG. PEAK TABLE: HOR42030.PEAK=D2--->ADEQ. PEAK TABLE: HOR42030.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 22 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	877.555	34	7
2	963.383	28	14
3	1014.494	16	18
4	1058.854	18	10
5	1082.963	15	20
6	1109.000	19	10
7	1127.323	21	11
8	1142.753	19	12
9	1166.862	14	12
10	1223.759	32	10
11	1246.903	72	11
12	1260.404	88	13
13	1269.084	56	17
14	1365.519	44	19
15	1389.628	24	11
16	1447.489	23	34
17	1460.026	22	29
18	1584.428	25	15
19	1628.788	41	10
20	1664.470	85	19
21	1709.794	59	9
22	1731.010	100	16





COMPOUND NAME: MELENGESTROL ACETATE  
 SYSTEMATIC NAME: 17 ALPHA-ACETOXY-6-METHYL-16-METHYLENE 4,6-PREGNADIENE-  
 CA NAME: PREGNA-4,6-DIENE-3,20-DIONE,17-(ACETYLOXY)-6-  
 : METHYL-16-METHYLENE-

3,20-DIO

CAS NUMBER: 2919-66-6  
 MERCK INDEX NO (10 ED): 5636  
 MOLECULAR FORMULE: C25H32O4  
 MOLECULAR WEIGHT: 396  
 MELTING POINT: 224-226  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 10 MG KBR  
 MANUFACTURER: UPJOHN  
 MANUFACTURER REFERENCE: 245112  
 CHARGE NUMBER: 332UW (ETHER EXTRACTED)  
 FLS: HOR42103

ORIG. PEAK TABLE: HOR42103.PEAK=D2--->ADEQ. PEAK TABLE: HOR42103.APKL

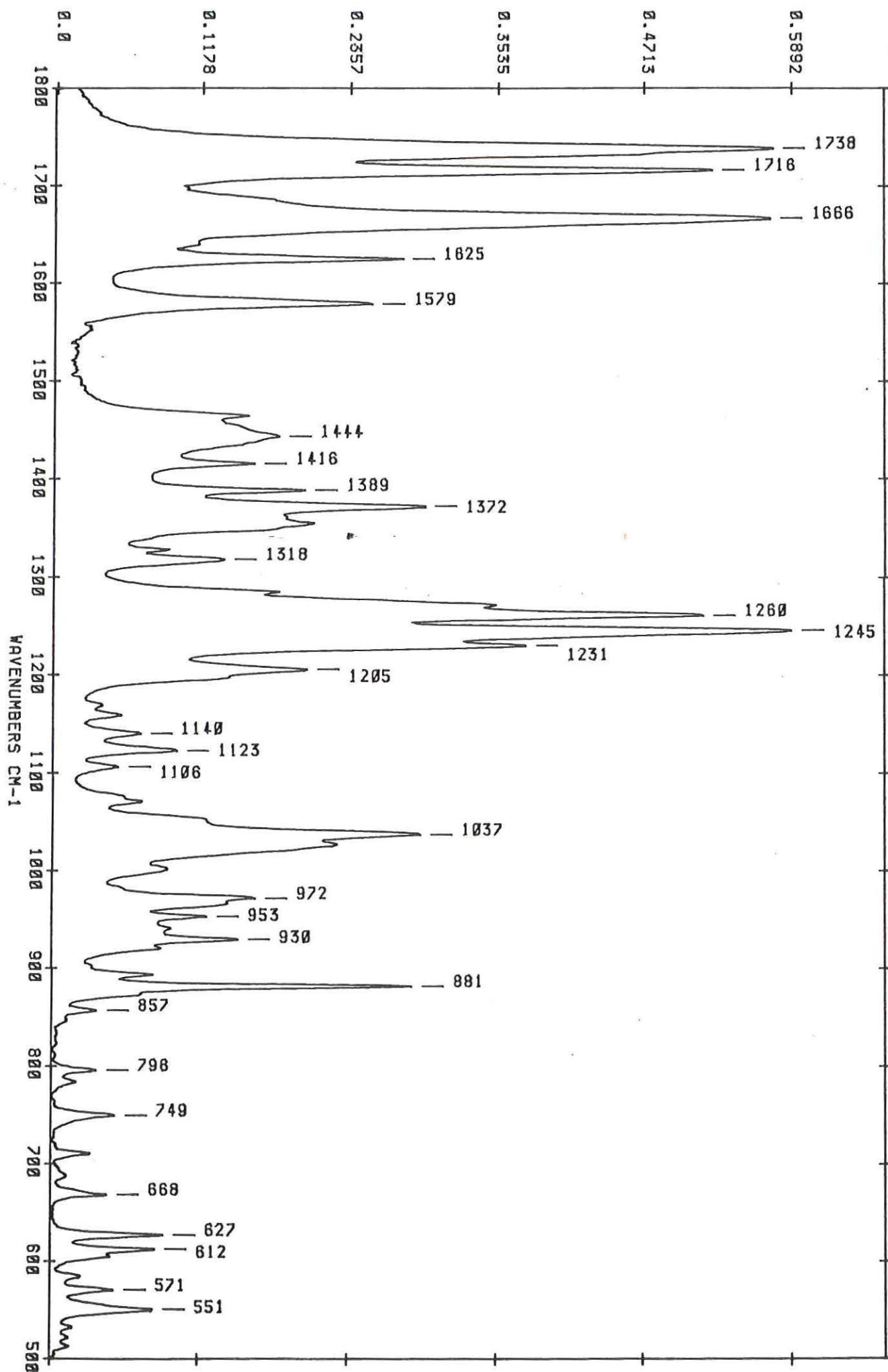
SENSITIVITY ORIGINAL PEAK TABLE : 90

23 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	550.645	14	10
2	612.364	14	11
3	626.829	15	7
4	881.419	48	5
5	929.637	25	10
6	952.782	21	9
7	972.069	27	19
8	1036.680	50	29
9	1122.508	17	10
10	1205.443	34	18
11	1230.516	64	13
12	1244.981	100	15
13	1260.411	88	15
14	1318.272	23	13
15	1372.276	50	14
16	1388.670	34	10
17	1415.672	27	11
18	1443.639	30	39
19	1578.648	43	12
20	1624.937	47	9
21	1666.405	97	19
22	1715.587	89	12
23	1737.767	98	19

R1



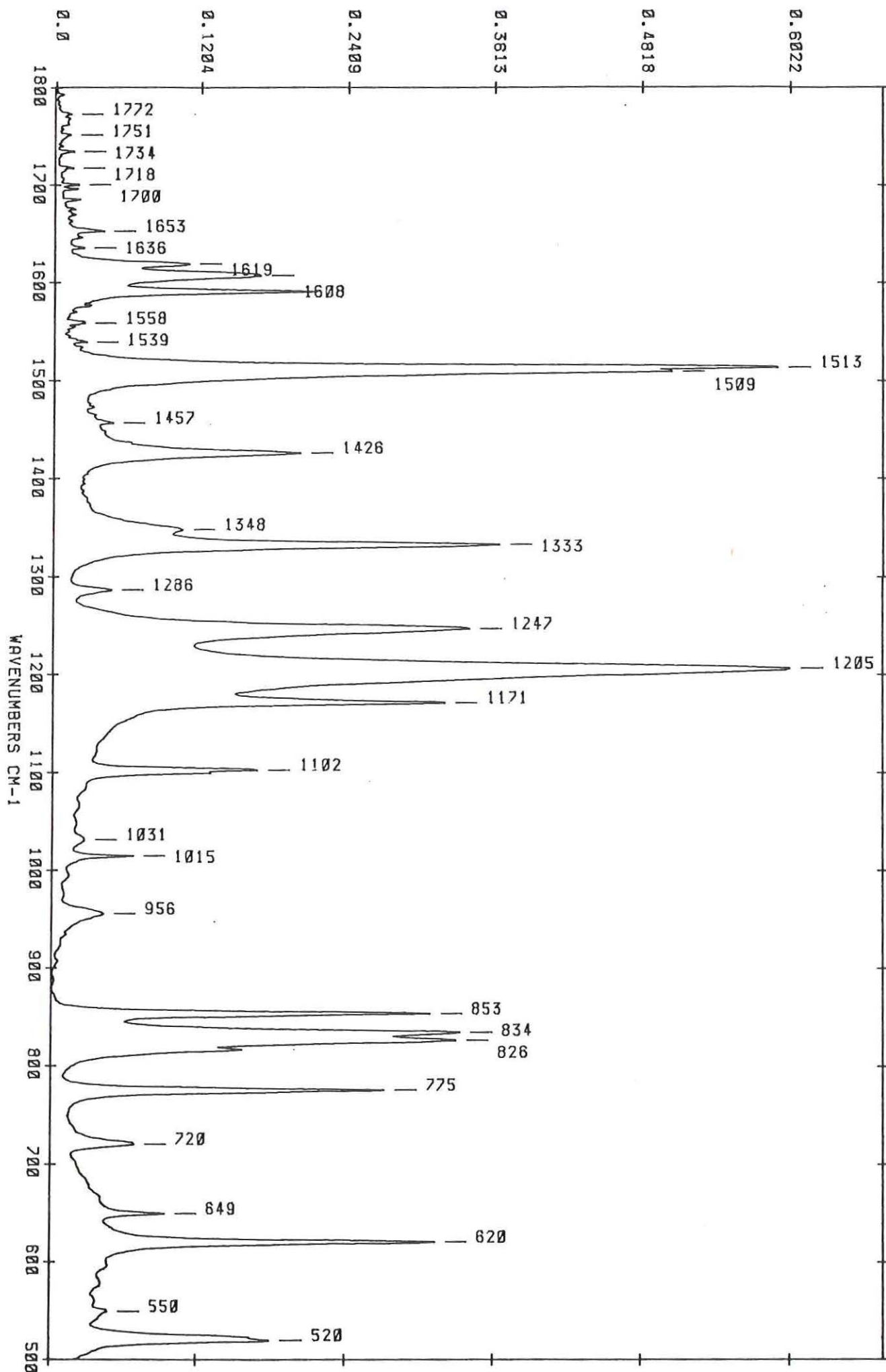


COMPOUND NAME: DIENESTROL  
 SYSTEMATIC NAME: 4,4'-(1,2-DIETHYLIDENE-1,2-ETHANEDIYL)BISPHENOL  
 CA NAME: PHENOL,4,4'-(1,2-DIETHYLIDENE-1,2-ETHANEDIYL)BIS  
 CAS NUMBER: 84-17-3  
 MERCK INDEX NO (10 ED): 3085  
 STERALIDS NUMBER: D 300  
 MOLECULAR FORMULE: C18H18O2  
 MOLECULAR WEIGHT: 266.3  
 MELTING POINT: 227-228  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: DIENOL, DINOXEX, RESTROL  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: D-3253  
 CHARGE NUMBER: 37C-0369  
 FLS: HOR42003

## ADEQ. PEAK TABLE: HOR42003.APKL

SENSITIVITY ORIGINAL PEAK TABLE : 90  
17 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	519.779	30	11
2	620.072	52	4
3	649.003	16	8
4	775.334	45	5
5	826.445	55	12
6	834.160	56	10
7	853.447	51	5
8	1102.251	28	7
9	1170.720	53	8
10	1205.437	100	19
11	1246.905	57	14
12	1332.733	61	9
13	1426.275	34	10
14	1513.067	98	12
15	1591.180	36	6
16	1607.574	28	11
17	1619.147	18	6



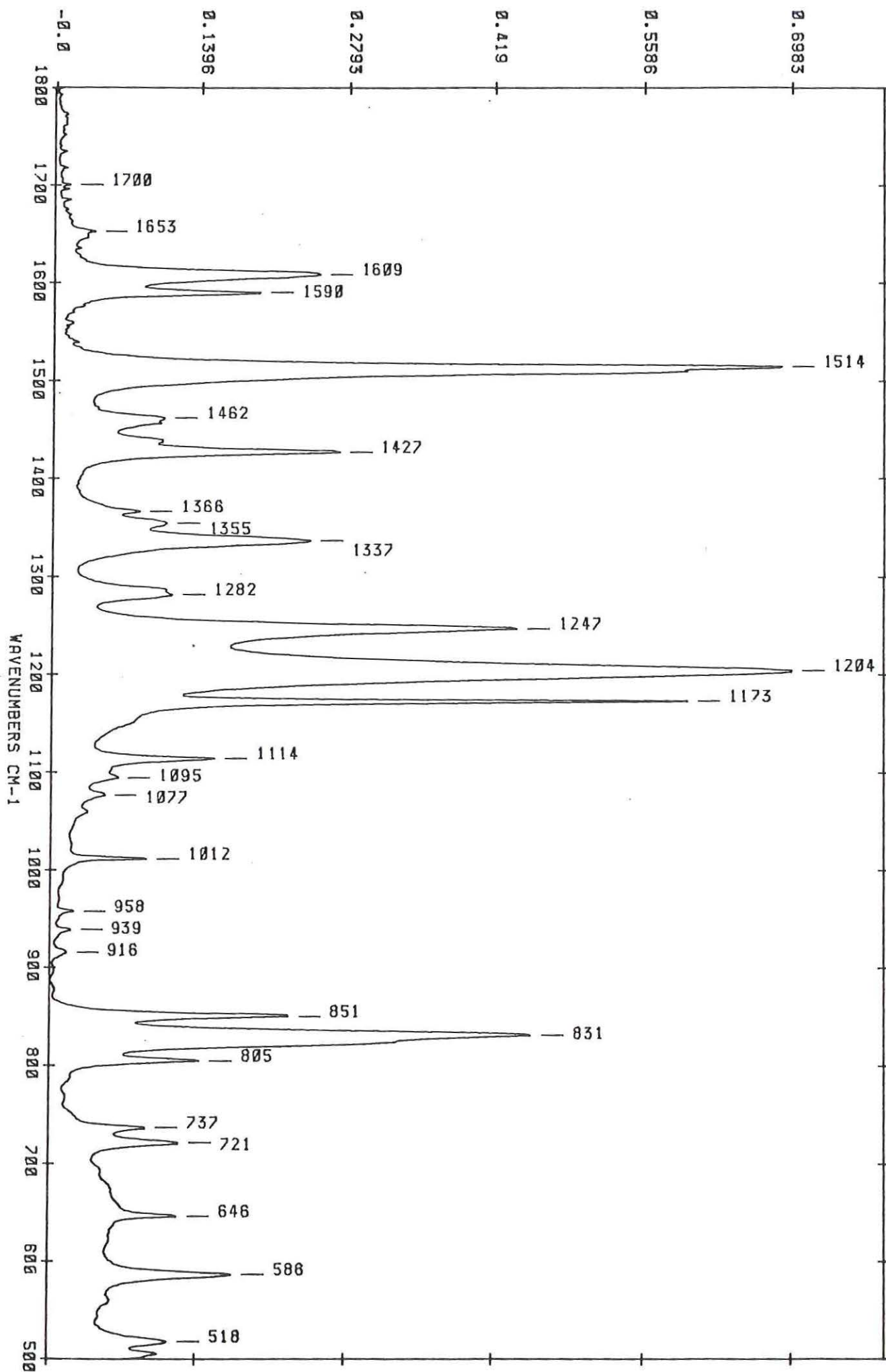
FLS-HOR42003

COMPOUND NAME: DIETHYLSTILBESTROL  
 SYSTEMATIC NAME: (E)-4,4'-(1,2-DIETHYL-1,2-ETHENDIYL)BISPHENOL  
 CA NAME: PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENDIYL)BIS-(E)  
 CAS NUMBER: 56-53-1  
 MERCK INDEX NO (10 ED): 3115  
 STERALIDS NUMBER: D 400  
 MOLECULAR FORMULE: C<sub>18</sub>H<sub>20</sub>O<sub>2</sub>  
 MOLECULAR WEIGHT: 268.3  
 MELTING POINT: 169-172  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: DES, BUFON, DISTILBENE, SERRAL  
 MANUFACTURER: INTERPHARM  
 MANUFACTURER REFERENCE: P-4186  
 CHARGE NUMBER: PH EUR 738559  
 FLS: HOR42001

ORIG. PEAK TABLE: HOR42001.PEAK=D2--->ADEQ. PEAK TABLE: HOR42001.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

18 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	586.320	26	12
2	646.110	18	10
3	721.330	18	11
4	805.229	21	6
5	831.267	65	16
6	850.554	32	7
7	1011.601	13	4
8	1113.823	22	9
9	1172.649	86	5
10	1203.509	100	21
11	1246.905	63	13
12	1281.622	16	18
13	1336.590	35	14
14	1427.240	39	9
15	1461.956	15	19
16	1514.032	99	13
17	1590.216	28	7
18	1608.539	36	12



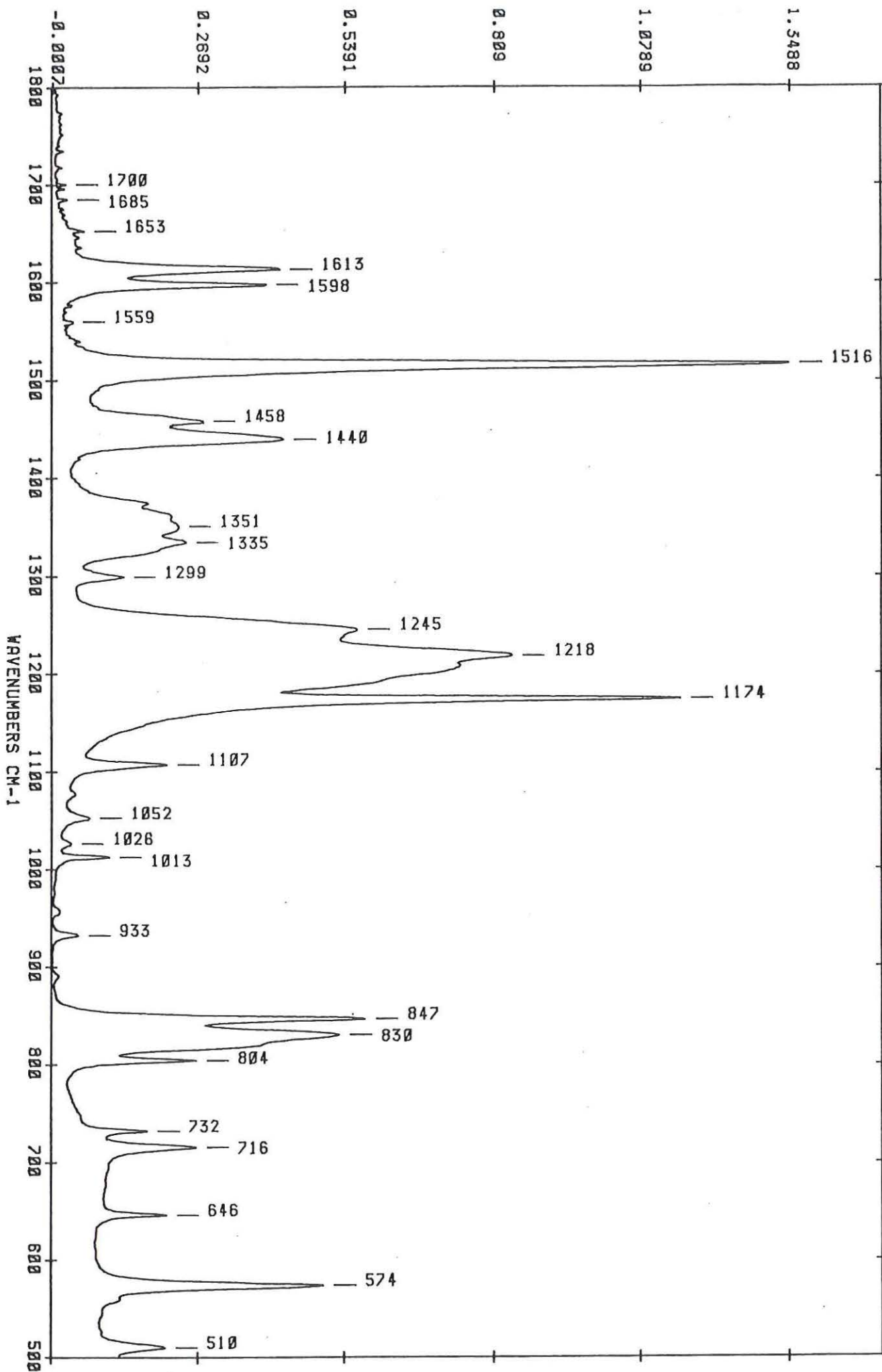


COMPOUND NAME: HEXESTROL  
 SYSTEMATIC NAME: 4,4'-(1,2-DIETHYL-1,2-ETHANEDIYL)BISPHENOL  
 CA NAME: PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHANEDIYL)BIS-(R.S)  
 CAS NUMBER: 84-16-2  
 MERCK INDEX NO (10 ED): 4593  
 STERALIDS NUMBER: -  
 MOLECULAR FORMULE: C18H22O2  
 MOLECULAR WEIGHT: 270.4  
 MELTING POINT: 185-188  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG/ 100 MG KBR  
 COMMERCIAL NAME: CYCLOESTROL, SYNTHOVO  
 MANUFACTURER: INC  
 MANUFACTURER REFERENCE: 15529  
 CHARGE NUMBER: 39959-A  
 FLS: HOR42002

ORIG. PEAK TABLE: HOR42002.PEAK=D2--->ADEQ. PEAK TABLE: HOR42002.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

15 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	510.135	20	17
2	573.783	41	10
3	646.110	19	7
4	715.544	23	11
5	804.265	22	7
6	830.302	41	26
7	846.696	45	7
8	1107.073	17	10
9	1173.614	86	9
10	1217.974	63	53
11	1439.776	33	19
12	1458.099	22	17
13	1515.960	100	9
14	1597.931	30	8
15	1613.361	32	10

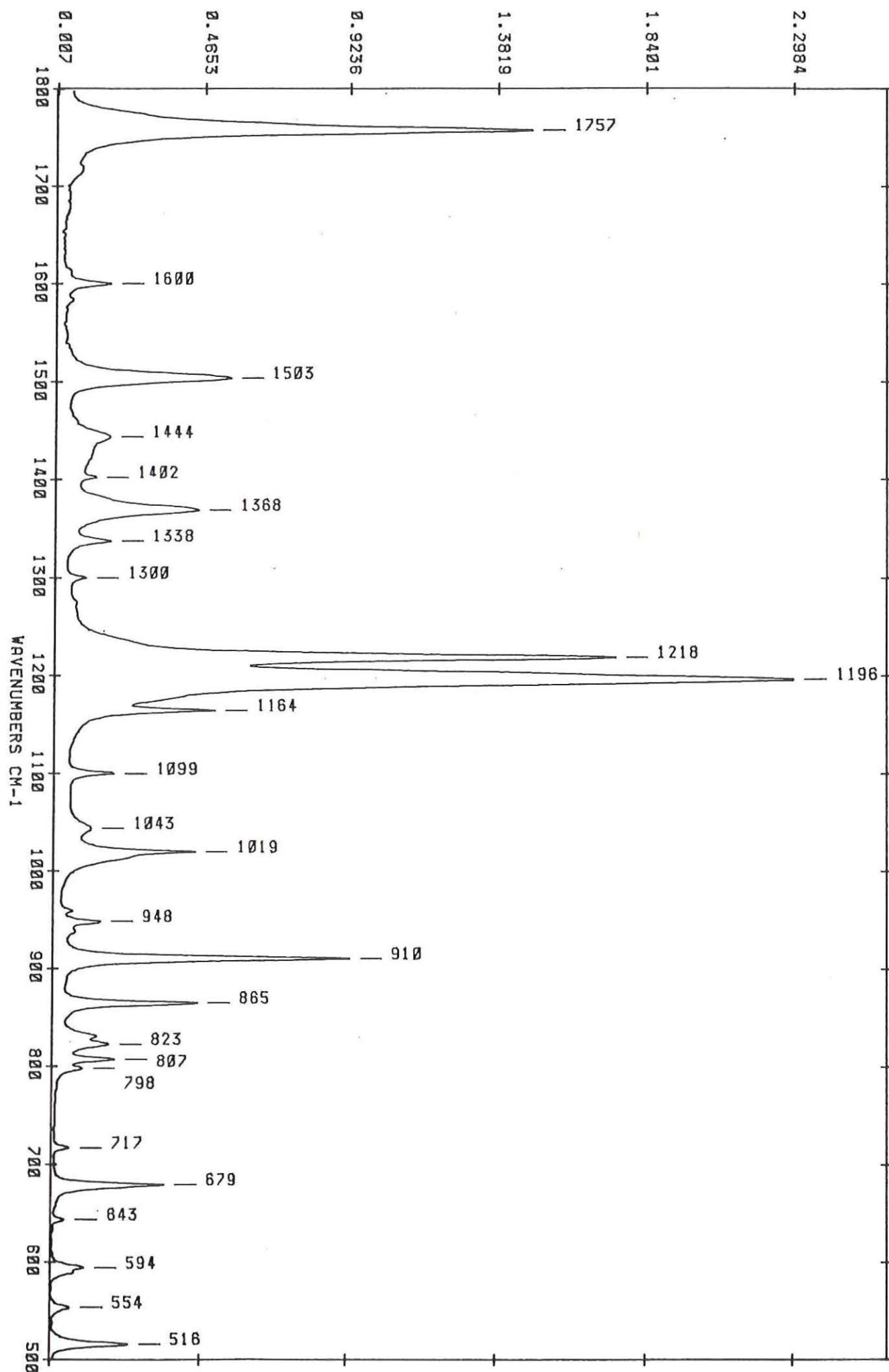


FLS-HOR42002

COMPOUND NAME: DIENESTROL-DIACETATE  
 SYSTEMATIC NAME: 4,4'-(1,2-DIETHYLDIENE-1,2-ETHANEDIYL)BISACETATE  
 CA NAME: 4,4'-(1,2-DIETHYLIDENE-1,2-ETHANEDIYL)BIS-DIACETATE  
 CAS NUMBER: 84-19-5  
 MERCK INDEX NO (10 ED): 3085  
 MOLECULAR FORMULE: C22H22O4  
 MOLECULAR WEIGHT: 350.4  
 MELTING POINT: 119-120  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: FARMACYROL, LIPAMONE, RETALON  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: D 3378  
 CHARGE NUMBER: 96B-0400  
 FLS: HOR42005

ORIG. PEAK TABLE: HOR42005.PEAK=D2--->ADEQ. PEAK TABLE: HOR42005.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 10 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	678.903	15	6
2	865.024	20	5
3	910.349	40	6
4	1019.321	19	9
5	1163.974	22	6
6	1195.798	100	16
7	1217.978	76	9
8	1368.418	20	14
9	1503.428	24	11
10	1757.053	65	10



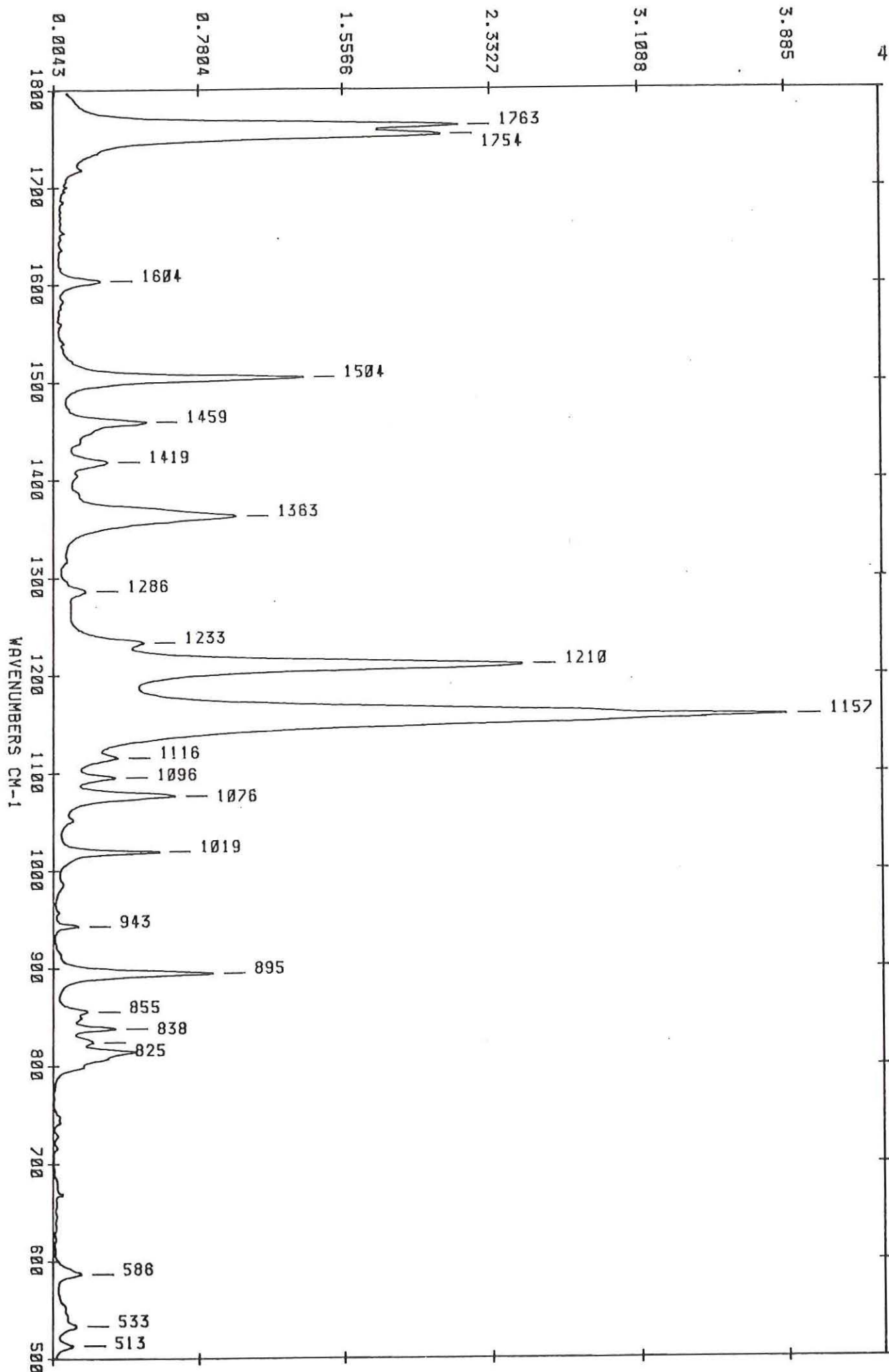
FLS-HOR42005

COMPOUND NAME: DIETHYLSTILBESTROL DIPROPIONATE  
 SYSTEMATIC NAME: ALPHA,ALPHA' DIETHYL 4,4'-STILBENEDIOL DIPROPIONYL ESTER  
 CA NAME: PHENOL,4,4'-(1,2 -DIETHYL-1,2 ETHENEDIYL) BIS-,DIPROPIONATE(E)  
 CAS NUMBER: 130-80-3  
 MERCK INDEX NO (10 ED): 3116  
 STERALIDS NUMBER: D-500  
 MOLECULAR FORMULE: C24H28O4  
 MOLECULAR WEIGHT: 380.5  
 MELTING POINT: 104-104.5  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: CLINESTROL,CYREN B, DIBESTIL,ESTILBEN,EUVESTIN,ORESTOL  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: D-3881  
 CHARGE NUMBER: 62F-0239  
 FLS: HOR42004

ORIG. PEAK TABLE: HOR42004.PEAK=D2--->ADEQ. PEAK TABLE: HOR42004.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 10 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	894.919	22	7
2	1019.321	14	5
3	1076.218	17	9
4	1157.224	100	18
5	1210.263	64	13
6	1362.632	25	17
7	1459.067	13	9
8	1504.392	34	7
9	1754.160	53	12
10	1762.840	56	10





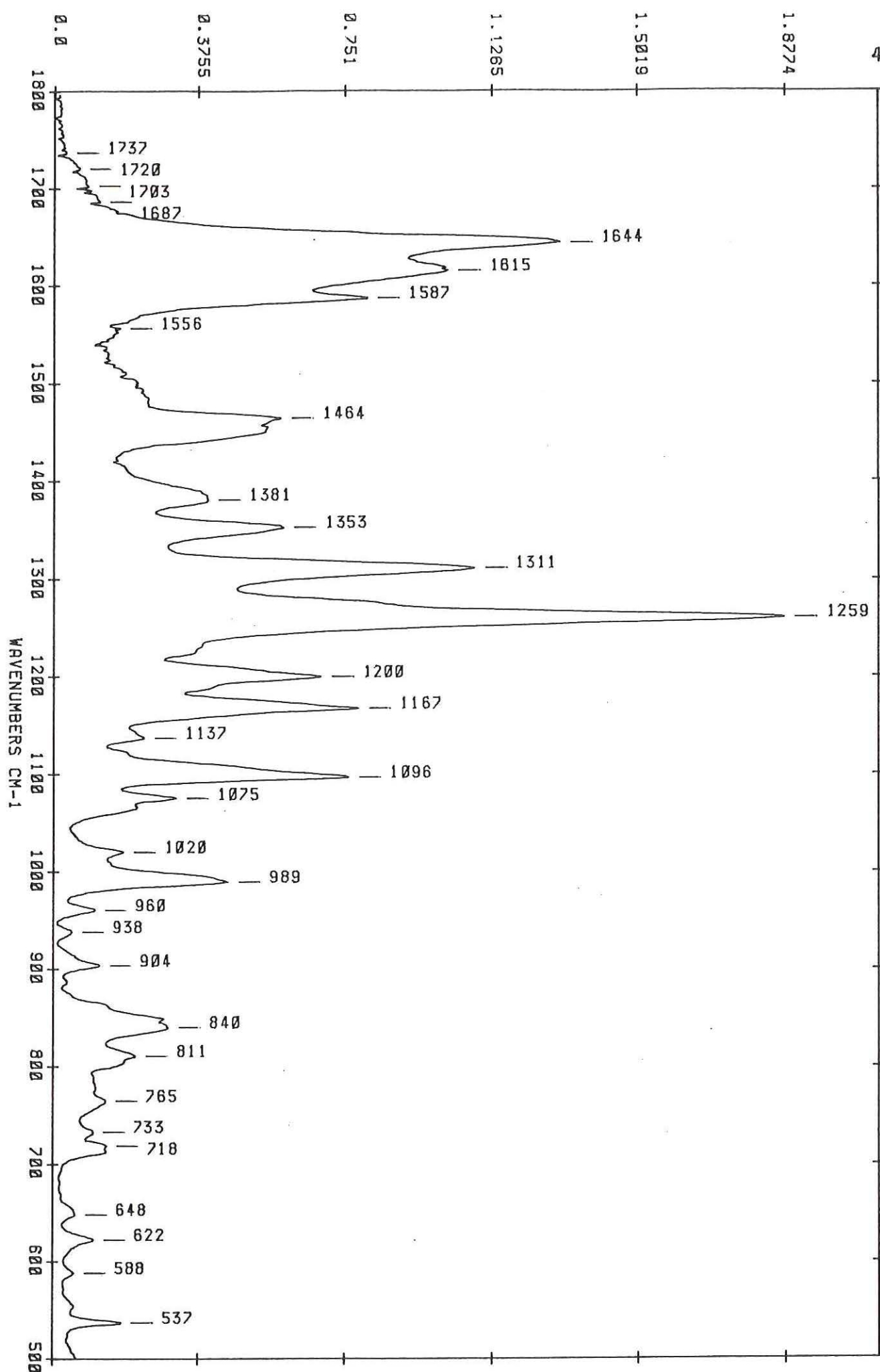
COMPOUND NAME: ZERANOL  
 SYSTEMATIC NAME: 3,4,5,6,7,8,9,10,11,12-DECAHYDRO-7,14,16-  
 TRIHYDROXY-3-METHYL-1H-2-BENZOXACYCLOTETRADECIN-1-ONE  
 CA NAME: 1H-2-BENZOXACYCLOTETRADECIN-1-ONE, 3,4,5,6,7,8,9,10,12-  
 DECAHYDRO-7,14,16-TRIHIDROXY-3-METHYL  
 CAS NUMBER: 55331-29-8  
 MERCK INDEX NO (10 ED): 9923  
 MOLECULAR FORMULE: C18H26O5  
 MOLECULAR WEIGHT: 322.41  
 MELTING POINT: 146-148 AND 178-180  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: RALGRO, RALABOL, RALONE, ZERANO  
 MANUFACTURER:  
 MANUFACTURER REFERENCE:  
 CHARGE NUMBER:  
 FLS: HOR42025

·ADEQ. PEAK TABLE: HOR42025.APKL

SENSITIVITY ORIGINAL PEAK TABLE : 90

14 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	839.951	16	30
2	989.426	24	18
3	1075.254	17	23
4	1096.469	41	19
5	1166.867	42	18
6	1199.656	37	23
7	1259.446	100	19
8	1310.557	58	21
9	1352.988	32	23
10	1380.955	21	39
11	1463.889	31	39
12	1587.327	43	18
13	1615.293	54	42
14	1644.224	70	25

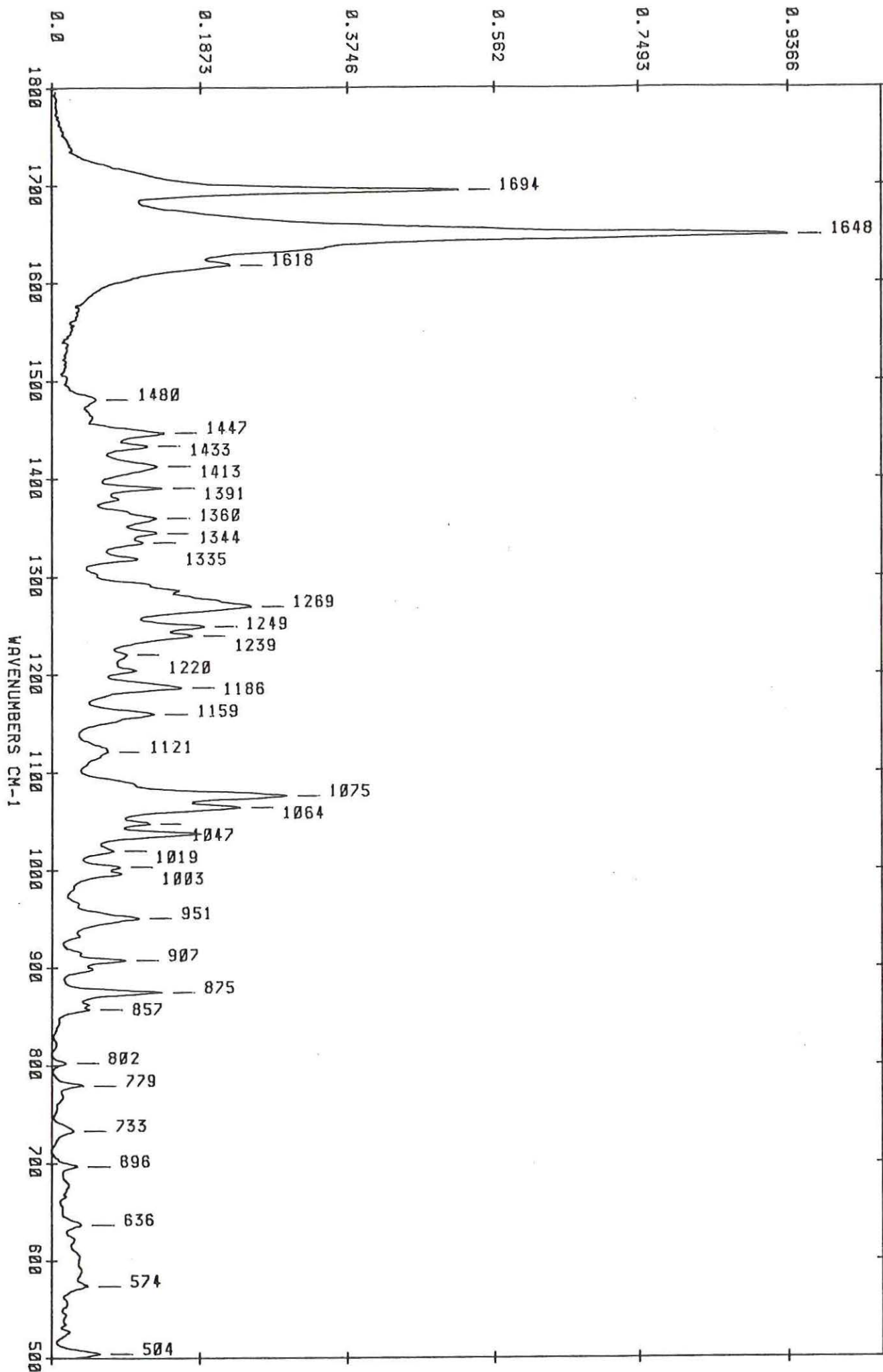


COMPOUND NAME: CORTICOSTERONE  
 SYSTEMATIC NAME: 11 BETA,21-DIHYDROXYPREGN-4-ENE-3,20-DIONE  
 CA NAME: PREGN-4-ENE-3,20-DIONE,11,21 DIHYDROXY-, (11 BETA)  
 CAS NUMBER: 50-22-6  
 MERCK INDEX NO (10 ED): 2509  
 STERALOID NUMBER: Q 1550  
 MOLECULAR FORMULE: C21H30O4  
 MOLECULAR WEIGHT: 346.4  
 MELTING POINT: 180-182  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: C-2505  
 CHARGE NUMBER: 49C-0372  
 FLS: HOR42026

ORIG. PEAK TABLE: HOR42026.PEAK=D2--->ADEO. PEAK TABLE: HOR42026.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90

13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CH-1
1	874.662	15	7
2	1036.674	20	8
3	1063.676	25	12
4	1075.248	32	14
5	1159.147	14	14
6	1186.149	18	14
7	1269.084	27	30
8	1390.592	15	8
9	1412.773	14	21
10	1446.525	15	14
11	1618.180	24	22
12	1648.075	100	14
13	1694.365	55	9





COMPOUND NAME: HYDROCORTISONE  
 SYSTEMATIC NAME: 11 BETA,17,21-TRIHIDROXYPREGN-4-ENE-3,20-DIONE  
 CA NAME: PREGN-4-ENE-3,20-DIONE,11,17,21-TRIHIDROXY-, (11 BETA)  
 CAS NUMBER: 50-23-7  
 MERCK INDEX NO (10 ED): 4689  
 STERALIDS NUMBER: Q 3880  
 MOLECULAR FORMULE: C21H30O5  
 MOLECULAR WEIGHT: 362.5  
 MELTING POINT: 217-220 AND 212-213  
 SAMPLE TECHNIQUE: MACRO-KBR  
 SAMPLE QUANTITY: 1 MG / 100 MG KBR  
 COMMERCIAL NAME: CORTISOL, ALA-CORT, CLEITON, CREMESONE, COBADEX, CORT DOME  
 MANUFACTURER: SIGMA  
 MANUFACTURER REFERENCE: H-4001  
 CHARGE NUMBER: 102F-0652  
 FLS: HOR42027

ORIG. PEAK TABLE: HOR42027.PEAK=D2--->ADEQ. PEAK TABLE: HOR42027.APKL  
 SENSITIVITY ORIGINAL PEAK TABLE : 90  
 13 PEAKS.

NO.	WAVE-NO.	REL. INTENSITY	WIDTH CM-1
1	865.018	21	9
2	899.735	21	9
3	942.167	15	20
4	1005.814	14	10
5	1047.282	27	15
6	1114.787	27	32
7	1133.109	23	12
8	1237.260	29	19
9	1271.012	25	35
10	1432.060	26	18
11	1610.466	31	15
12	1644.218	100	23
13	1713.652	43	22

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